# A STUDY TO ASSESS THE EFFECTIVENESS OF NADI SHODHANA PRANAYAMA ON GENERAL WELLBEING AMONG ADOLESCENTS STUDYING IN SELECTED SCHOOL,TIRUVANNAMALAI

DISSERTATION SUBMITTED TO

**THE TAMIL NADU DR.M.G.R.MEDICAL UNIVERSITY**

**CHENNAI**

IN PARTIAL FULFILMENT OF REQUIREMENT FOR THE DEGREE OF

**MASTER OF SCIENCE IN NURSING**

**OCTOBER 2016**

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# LIST OF ABBREVIATIONS

| | | |
|---|---|---|
| ANOVA | - | Analysis Of Variance |
| BBSS | - | Bisht Battery of Stress Scale |
| CINHAL | - | Cumulative Index of Nursing and Allied Health Literature |
| CNE | - | Continuing Nursing Education |
| f | - | Frequency |
| MEDLINE | - | Medical Literature on Line |
| MMDQ | - | Moosmenstrual Distress questionaire |
| NH | - | Null Hypothesis |
| N.S | - | Non Significant |
| NSP | - | Nadi Shodhana Pranayama |
| PA | - | Physical Activity |
| PFT | - | Pulmonary Function Test |
| PWB | - | Psychological Wellbeing |
| RCT | - | Randomized Control Trial |
| S.D | - | Standard Deviation |
| S | - | Significant |
| SRSWOR | - | Simple Random Sampling without Replacement |
| SPSS | - | Statistical Package for Social Science |
| UNFPA | - | United Nations Population Fund |
| WHO | - | World Health Organization |

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# ABSTRACT

A Study to Assess the Effectiveness of Nadi Shodhana Pranayama on General Wellbeing among Adolescents Studying in Selected School, Tiruvannamalai.

**INTRODUCTION:**

Adolescence is a transitional period between childhood and adulthood. In Indian society, Adolescents period begins from 10 years and ends upto 19 years (WHO).

In 2011, there were an estimated 1.2 billion adolescents in the world, forming around 18 per cent of the global population. The vast majority of the world's adolescents – 88 per cent – live in developing countries. Around 243 million of them live in India. In Tamil Nadu statistics of adolescents is 62.41 million by UNFPA.

Stress, anger, disappointments, frustrations, and other negative emotions adversely affect General wellbeing of Adolescents Such negative emotions and actions should be dealt effectively and set-backs should be accepted without injuring the health. There are many measures to deal with wellbeing such as yoga, meditation, acupressure, guided imagery and laughter therapy. Yoga is of many types. Through the development of one`s body, mind and psychic potencies, these ultimately lead to physical strength by unifying mind and body and further on to spiritual consciousness. Most of the types of yoga also involve meditation and breathing exercises or Pranayama. Researchers claim highly beneficial results from yogic breathing (Pranayama) in alleviating stress and its physical effects.

**OBJECTIVES:**

To assess the effectiveness of Nadi shodhana pranayama on General Wellbeing among Adolescents studying at selected school, Tiruvannamalai.

**DESIGN:**

Pre-test and Post-test design of Basic Experimental Design which comes under True Experimental Design

**SETTING:**

Sri Srinivasa High School, located at Tiruvannamalai.

**SAMPLING TECHNIQUE:**

Simple Random Sampling Technique was used to select the adolescents. 30 were assigned to experimental group and 30 to control group.

**PARTICIPANTS:**

60 adolescents between 13-16 years age, who fulfilled the inclusive Criteria.

**INTERVENTION:**

Nadi Shodhana Pranayama practiced 4 weeks 45 minutes per day at 4pm to 4.45 pm

**MEASUREMENT AND TOOL:**

The level of General Wellbeing was assessed using Modified General Wellbeing Scale

**RESULTS:**

The comparison of the pre and post test level of General Wellbeing among Adolescent in Experimental Group, revealed that the calculated paired 't' value $t = 23.6$ was found to be statistically significant at $p<0.001$ level. This clearly shows that the practicing Nadi Shodhana Pranayama had shown a significant improvement in the post test level of General wellbeing among Adolescents in the Experimental Group.

The comparison of post test level of General wellbeing among Adolescents between the Experimental and Control Group revealed that the calculated unpaired value of $t=15.94$ was found to be statistically significant at $p<0.001$which indicates that there was difference in the post test level of General Wellbeing between the Groups, this clearly shows that the practice of Nadi Shodhana Pranayama had improved the level of General wellbeing in the Experimental Group than the Control Group.

## CONCULSION:

The study Findings concluded that there was a statistically significant difference in the level of General wellbeing after practicing Nadi Shodhana Pranayama and this proved to be significant effective alternative adjunct and non pharmacological therapy to improve the General Wellbeing among Adolescents.

## IMPLICATIONS FOR CLINICAL PRACTICE:

The significant improvement in the level of General Wellbeing among the Adolescent after the Nadi Shodhana Pranayama suggests that the Nurses play an important role in creating awareness on Nadi Shodhana Pranayama which enhances the General wellbeing and also educate, reinforce the public about the health benefits of Nadi Shodhana Pranayama. Further researches have suggested evaluating the effectiveness of Nadi Shodhana Pranayama among the Hospitalized Adolescents.

# CHAPTER – 1

# INTRODUCTION

**"Wellness is the complete integration of body, mind, and spirit- the realization that everything we do, think, feel, and believe has an effect on our state of wellbeing."**

**- Greg Anderson**

## 1.1 BACKROUND OF THE STUDY

Adolescence is a transitional period between childhood and adulthood. In Indian society, Adolescents period begins at 10 years and ends upto 19 years (WHO).

In 2011, there were an estimated 1.2 billion adolescents in the world, forming around 18 percentage of the global population. The vast majority of the world's adolescents 88 percentages live in developing countries. Around 243 million of them live in India. In Tamil Nadu adolescents is 62.41 million by UNFPA.

Today, every fifth person in India is an adolescent (10-19 years). Adolescence is an age of opportunity for children, and a pivotal time to build on their development in the first decade of life, to help them navigate risks and vulnerabilities, and to set them on the path to fulfilling their potential.

The theme of World Population Day 2014, 'Investing in Young People in India' is the best way to develop the competitive advantage for the country and there is an urgent need to address their concerns.

Scientific advancement, high educational aspirations and severe competition in academic areas have an impact on the overall development of adolescents because during this age the adolescents enter from the childhood to adulthood. They have many goals to achieve, many desires to fulfill and many ambition in life.

Stress, anger, disappointments, frustrations, and other negative emotions adversely affect general wellbeing. Such negative emotions and actions should be dealt effectively and set-backs should be accepted without injuring their health. There are many measures to deal with wellbeing such as yoga, meditation, acupressure, guided imagery and laughter therapy. Yoga is of many types. Yoga ultimately leads to physical strength by unifying mind and body and further on to spiritual consciousness. Most of the types of yoga also involve meditation and breathing exercises or Pranayama. Researchers claim highly beneficial results from yogic breathing (Pranayama) in alleviating stress and its physical effects.

Yoga day is celebrated annually on June 21 and was declared to be internationally recognized by the United Nations General Assembly (UNGA) on December 11, 2014.

Yoga is a physical, mental and spiritual practice or discipline that originated in India.

**Nadi Shodhana** also known as Alternate Nostril Breathing is a powerful breathing practice with wide reaching benefits. **Nadi** is a Sanskrit word meaning 'channel' or 'flow' and **Shodhana** means 'purification.'

There are about 50 types of Pranayama. Nadi Shodhana is a simplest form of Pranayama which aims at **calm and center the mind**, bringing the mind back to the present moment, **works therapeutically** for most circulatory and respiratory problems, **releases accumulated stress** in the mind and body effectively and helps relax and helps **harmonize the left and right hemispheres of the brain**, which correlate to the logical and emotional sides of personality. It helps purify and balance the nadis, the subtle energy channels, thereby ensuring **smooth flow of prana** (life force) through the body and maintains body temperature.

Here slow, deep, rhythmic breath is taken first through the right nostril by closing the left nostril and is held for 5 – 8 seconds and released through the left nostril closing the right nostril. Then in the same manner breath is taken through the left nostril and exhaled through the right nostril. This is one complete cycle of nadi-shodhana Pranayama. Such 10- 15 cycles are repeated at a stretch. Since nadi-shodhana Pranayama has an ability to make an individual concentrate, improve good oxygen circulation in the body, spiritual benefits of breathing and removes excess carbon dioxide from the body it makes us physically and psychologically healthy , It also helps for balancing autonomic nervous system and influences psychological and stress related disorders.

**Anurag Joshi (2011) et.al** An Analysis study was conducted to Enhance Wellbeing Amongst Engineering Students through Nadi Shodhana Pranayama. A group of engineering students who volunteered to practise alternate nostril breathing (Nadi Shodhana Pranayama) for 3 month was selected. They applied the introspection (subjective observation) method of Psychology and analyzed the various traits related to wellbeing of the group on Likert's five point psychometric scale before and after applying this technique .The study was observed that 75% of the subjects gained in terms of Feeling Healthy, 80% in terms of memory recall, 75% in terms of mental stress relief and 90% in terms of physical relaxation.

## 1.2 NEED FOR STUDY

**"It is the birth right of every human being to have a stress - free mind and a disease - free body."**

**- Sri Sri Ravishanker**

Well-being integrates mental health (mind) and physical health (body) resulting in more holistic approaches to disease prevention and health promotion.

Adolescents are a group of apparently healthy individuals. The health status of an adolescent determines the health status in his/her adulthood. Many serious diseases in adulthood have their roots in adolescence. Also, many adolescents do die prematurely due to various reasons that are either preventable or treatable and many more suffer from chronic ill-health and disability. We can categorize the health needs

of the adolescents broadly into three categories: physical, psychological and social. The main health issues faced by the adolescents include: Mental health problems, early pregnancy and childbirth, human immunodeficiency virus/sexually transmitted infection (HIV/STI) and other infectious diseases, violence, unintentional injuries, malnutrition and substance abuse.

Adolescents account for about one-fifth of India's population. About 12.8 percent of students suffer from physical, mental related problems in India. Ignoring adolescents' means ignoring the future of our nation. Untreated health problems of adolescents affect their physical, mental, social development and academic performance. It also leads to academic failure, truancy, family conflicts, drug abuse, violence and suicide.

Today wellbeing levels among students have been going up dangerously due to the pressure of their academic or cultural activities. Physical, mental stress has the highest prevalence among the causes for poor academic performance .Data tabulated from national probability sample survey of 1750 students. About 75 percent of the total student populations really get physical injury and stressed at least one day in a week leading to poor concentration and even absenteeism.

Academic pressure, Stress produces a state of physical and mental tension. Exercise, yoga, meditation, good sleep, relaxation, healthy diet and quitting smoking are some of the measures for the same. However, research suggests that yogic breathing or Nadi Shodhana Pranayama helps in significant improvement of the general wellbeing. Yogic breathing is recognized as a form of Mind-Body medicine. It improves the muscle strength, flexibility, blood circulation and oxygen uptake as well as hormone functioning.

The practice of Nadi Shodhana Pranayama helps the human, clear the mind's clutter and the tensions in his body. So those feels more alert, and have greater access to emotional material. It is a non-invasive, non-pharmacological, economical and more effective method for general wellbeing of adolescents. It was witnessed that when the breath is observed, a person can be more present and less reactive towards physical and mental effects.

**Prentsa (2012)** found the relationship between adolescent's perceptions of their physical qualities and their psychological wellbeing and un-wellness. It is seen that, taking into account physical self identity, male adolescent's present higher scoring for psychological wellbeing than their female counterpart's presents. This same relationship was established between 12-14 years old adolescents on the other and between those who do not.

**Anita Deswal (2012)** an experimental study was conducted to compare male and female students of pre university students on stressful life events. A sample of 416 pre university students, comprising of 199 male 217 female students were selected randomly. Stressful life events schedule was used to collect data. The study results revealed that male students of pre-university courses experienced more stressors in family relations, peer relations, academic and overall stress compared to female students.

From the above review and the investigator's experience in the clinical and community area, adolescents had varied level of pressure due to academic expectation and overload, family, peers etc which affected their general wellbeing. This motivated the investigator to undertake a study to assess the Effectiveness of Nadi Shodhana Pranayama on General Wellbeing among Adolescents studying in selected school, Tiruvannamalai.

## 1.3 STATEMENT OF THE PROBLEM

A Study to Assess the Effectiveness of Nadi Shodhana Pranayama on General Wellbeing among Adolescents Studying in Selected School, Tiruvannamalai.

## 1.4 OBJECTIVES

1. To assess and compare the pre and post test level of General Wellbeing among Adolescents within Experimental and Control Group.
2. To assess and compare the pre and post test level of General Wellbeing among Adolescents between Experimental and Control Group.
3. To determine the association in the pre and post test mean difference level of General Wellbeing with the selected demographic variables in Experimental and Control Group.

## 1.5 OPERATIONAL DEFINITION

**Effectiveness:**

It refers to the outcome of Nadi Shodhana Pranayama on level of General wellbeing among Adolescents which is assessed by using modified general wellbeing scale.

**Nadi Shodhana Pranayama**

In this study it refers to teaching and demonstration of Nadi Shodhana Pranayama for one week (5 session), 45 minutes a day followed by personal supervision of return demonstration for 3 weeks.

**General wellbeing**

In the study it refers to subjective feeling of being healthy contented that occurs with the result of a dynamic, integrated balance in the level of Physical and Emotional dimension of the lives of adolescents. This is measured by Modified General Wellbeing Scale.

**Adolescent**

Adolescent refers to children in the age group between 13 to 16 years.

## 1.6 ASSUMPTION

1. Adolescent period is a challenged period of great strain, stress and storm and strife which may alter the General wellbeing of Adolescents
2. The Nadi Shodhana Pranayama may enhance the General wellbeing in the Adolescents.

## 1.7 NULL HYPOTHESES

$NH_1$ : There will be no significant difference between pre and post test of General Wellbeing among Adolescents in Experimental and Control group at $P<0.05$ level.

$NH_2$ : There will be no significant difference between pre and post test level of General Wellbeing among Adolescents between Experimental and Control group at $P<0.05$ level.

$NH_3$ : There will be no significant association in the mean difference level of General Wellbeing with the selected demographic variables among Adolescents in Experimental and Control group at $P<0.05$ level.

## 1.8 DELIMITATIONS

1. The study is delimited to 4 weeks only.
2. The study is conducted in selected setting only.

## 1.9 CONCEPTUAL FRAME WORK

The conceptual framework or a model is made up of concepts. It provides the guidelines to proceed to attain goals and objectives of the study based on the theory. It is a schematic representation of the steps, activities and outcome of the study.

The investigator adopted **CALLISTA ROY'S ADAPTATION THEORY** as a base for developing the conceptual framework.

The study is based on the concept that teaching and demonstration of Nadi Shodhana Pranayama to adolescents studying in selected school.

Roy's theory explains human beings are bio psychosocial adaptive system, who copes with environmental change through the process of adaption. Within the human system, there are four sub systems response modes such as physiological needs, self concept, role function and independence. These subsystems constitute adaptive mode that provide mechanism for coping with environmental stimuli and change. The goal of nursing, according to this model is to promote adaptation in human being during health and illness.

The main concepts of this model are

- Input
- Throughput
- Output
- Feedback

**INPUT:**

In this study, input refers to demographic variables such as Age, Gender, Educational status of children , Educational status of father, Educational status of mother, Occupational status of father , Occupational status of mother, Family income, Type of family, Area of residence , Dietary pattern , Type of physical activity.

The investigator assesses the pre test level of general wellbeing among adolescents by using Modified General wellbeing scale in Experimental and Control Group.

**THROUGHPUT:**

In this study, throughput refers to providing intervention that is Nadi Shodhana Pranayama .The person uses it as adaptive system. Experimental group is exposed to intervention that is teaching and demonstration of Nadi Shodhana Pranayama for one week (5sessions), 45 minutes a day followed by personal supervision of return demonstration for 3 weeks (15 sessions) . Control group is allowed for routine school activity.

**OUTPUT:**

In this study**,** output refers to the assessment of post test level of general wellbeing among adolescents by using modified General wellbeing scale in Experimental and Control Group.

The response provides feedback of the system. Roy's states that output of the system is either high positive outcome, medium positive outcome, low positive outcome and negative outcome.

**FEEDBACK:**

For positive outcome enhancement will be given and for Negative outcome reassessment will be given.

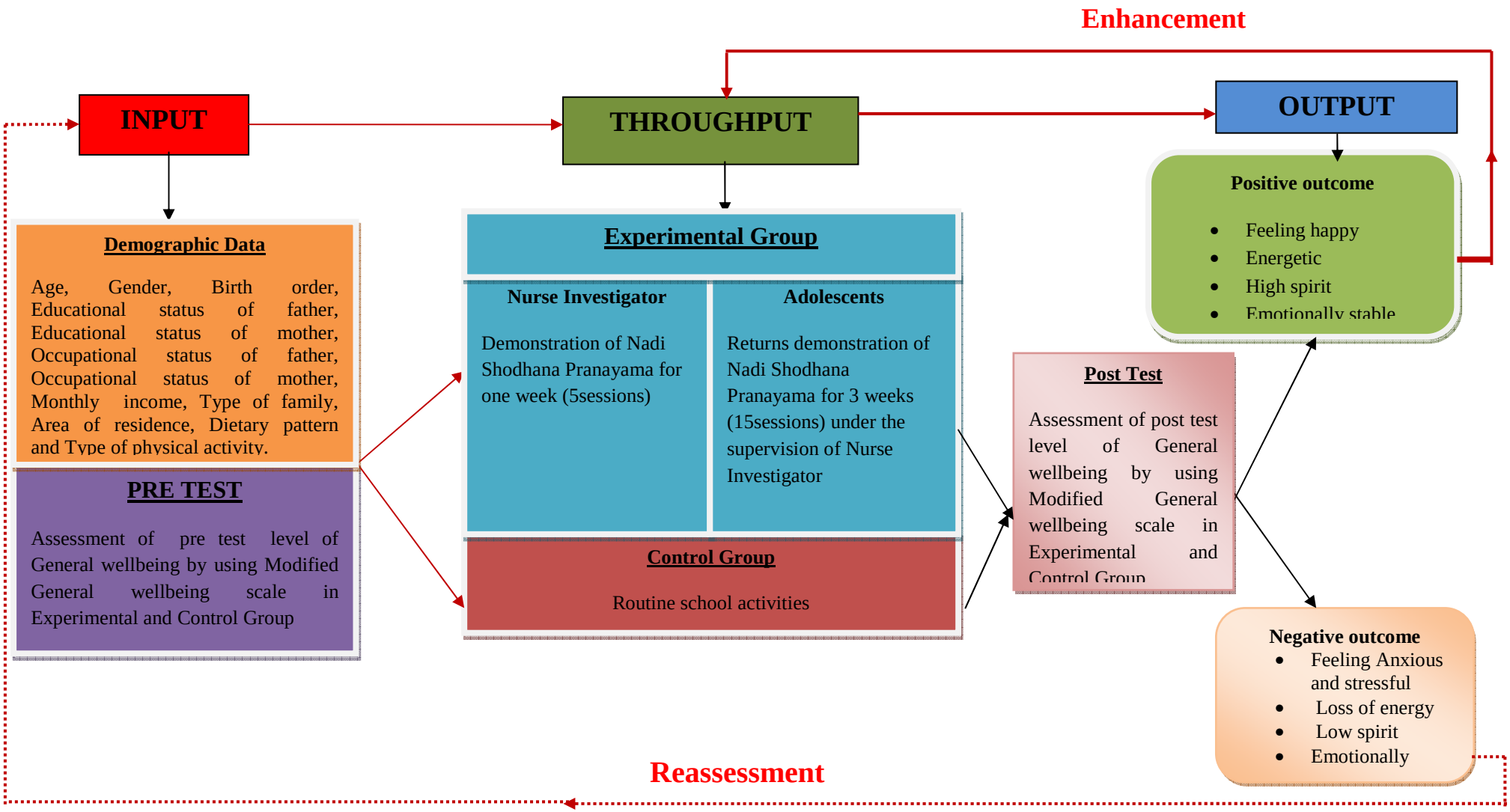



**FIG.1 CONCEPTUAL FRAMEWORK BASED ON CALLISTA ROY'S ADAPTATION THEORY**

# CHAPTER - 2

## REVIEW OF LITERATURE

The review of literature is an essential aspect of scientific research. It entails the systematic identification, reflection, critical analysis and reporting of existing information in relation to the problem of interest. The purpose of review of literature is to obtain comprehensive knowledge and in depth information in about the effectiveness of Nadi Shodhana Pranayama on general well being among adolescents.

Review of literature is a systematic study of a number of previous studies which helps to support the research work done. It includes all types of studies. It gives an idea of how the study can be conducted and what is to be done for it. It is helpful for the investigator.

The review of literature is organized under the following sections.

Section 2.1: Reviews related to level of General Wellbeing among Adolescents.
Section 2.2: Reviews related to Effectiveness of Nadi Shodhana Pranayama among Adolescents

Section 2.3: Reviews related to Effectiveness of Nadi Shodhana Pranayama on General Wellbeing.

### Section 2.1: Reviews related to General Well being among Adolescents

**Moomalchawra et.al (2014)** conducted a study to assess the general wellbeing and adjustment among adolescents. The sample comprises 400 adolescents (200 boys and 200 girls) of first year college students in Udaipur (Rajasthan). The participants were administered the P. G.I general well-Being scale and the Adjustment Inventory. The study measures adjustment in emotional, social and educational areas. The results analyzed revealed that there was a significant variation in general well being and adjustment of boys and girls.

**Varpu Wiens et.al (2014)** conducted a study to assess the adolescent girls wellbeing in northern Finland. The participants were 117 girls aged between 13 and 16 who were attending primary school. Data were collected electronically. The responses were evaluated by using inductive content analysis. The study result shows that Positive experience of life course is related to high self-esteem and feeling good, safe, and optimistic. Favorable social relationships meant having good relationships with family and friends.

**B. Sathyabama (2014)** conducted a study to examine the relationship between family environment and its influence on General Wellbeing of adolescent girls. 90 adolescent girls were chosen through simple Random sampling procedure in Government Higher Secondary School, Perambalur District of Tamilnadu. The wellbeing is assessed using General Wellbeing scale. The result analyzed revealed that there was a significant relationship between the family interactions and wellbeing of adolescent girls.

**k. Jayakrishnan et.al (2014)** conducted a study to assess the general wellbeing and self-esteem among adult children of mentally ill parents in selected hospital of Udupi district. The study was conducted among 63 adult children of mentally ill parents by using convenient sampling technique. PGI General Wellbeing scale and psychological wellbeing scale was used. The result analyzed revealed that Majority (68.3%) of the samples were found to be having normal self-esteem and wellbeing.

**Yasmin Khan et.al (2012)** conducted a study to assess the Psychological Well-Being (PWB) of School Adolescents Aged 12–18 years, its Correlation with General Levels of Physical Activity (PA) and Socio-Demographic Factors in Gilgit, Five randomly selected schools with 345 adolescents. A self-administered Well-Being index was adapted to measure PWB and questionnaire for adolescents PA (PAQ-A). The result analyzed revealed that there was a significantly not different between low, moderate and high PWB with PA.

**Helen R et.al (2012)** conducted a study to explore a self-report measure for psychological well-being and to investigate the relationship between psychological

well-being and psychological distress. Telephone interviews of a representative sample of adults (N=1933) collected information about socio demographic variables, a standardized measure of psychological distress, and three brief existing scales to assess aspects of psychological well-being. The total of these three scales was also computed and explored as a measure of overall well-being. The result analyzed revealed that Variables positively associated with psychological well-being were negatively associated with psychological distress.

**George Giannakopoulos (2012)** conducted a study to examining the relationship between parental subjective health status and adolescents' general health-related quality of life. 1194 samples were selected through random sample technique aged 11-18 years and 973 their parents. Adolescents' and parents' status was assessed, together with reports of socio-economic status and level of social support. The result analyzed revealed that Parental subjective mental health status was significantly correlated with adolescents' better physical and psychological wellbeing, moods and emotions.

**Sameeha (2012)** conducted a study to evaluate the effectiveness of structured teaching programme on knowledge regarding factors influencing psychological well being among adolescents in a selected pre university college at Hassan, Karnataka. The sample size was 60 adolescents' students Sample is selected by using probability sampling method by using simple random technique .In this study was used Pre experimental research design, one group pre test post test design is planned for research study. The knowledge questionnaire was used. The result analyzed revealed that improvement in the knowledge of adolescents.

**Kaur (2011)** conducted a study to assess the wellbeing of school going adolescents in relation to gender and moral judgment. A representative sample of 250 school adolescents selected. General wellbeing scale was used to assess the adolescents. The results found that the adolescents have an above average level of well being and no significant gender difference in well being of adolescents. It also indicated that there is a positive significant relationship between wellbeing and moral judgment among school going adolescents.

**Section 2.2: Reviews related to Nadi Shodhana Pranayama among Adolescents**

**Chethan K (2015)** conducted a study to assess the Effect of Nadi Shodhana Pranayama on Verbal and Spatial Memory Scores among school students. 100 subjects were selected through random sampling technique. Subjects were assigned into Experimental Group (n=50) and Control Group (n=50). Experimental Group practiced Nadi Shodhana Pranayama for 12 weeks 20 minutes daily. The pre and post Verbal and Spatial memory scores were measured on day 1 and after 12 weeks in both the groups. The result analyzed revealed that a significant improvement in spatial and verbal memory score ($p<0.001$) in Experimental group compared to control group.

**Sailer HS et.al (2014)** conducted a study to assess the effect of Nadi Shodhana Pranayama on academic performance in relation to stress. Sample consisted of 800 adolescent students; 159 high-stress students and 142 low-stress students were selected on the basis of scores obtained through Bisht Battery of Stress Scale (BBSS). Experimental group 400 and control group 400 were given pre test in three subjects that is Mathematics, Science, and Social Studies. Experimental group was given yogic breathing or Nadi Shodhana Pranayama for 7 weeks. The Experimental and Control groups were post-tested for their performance on the above three subjects. The result analyzed revealed that the students who practiced yoga performed better in academics.

**Sonam Vaishya (2013)** conducted a study to explore the effect of Nadi Shodhana Pranayama on Self Confidence among rural area students .The present study was conducted at Awdoot Ram Mahavidyalya,Sonbhadra (u.p.). Total 30 samples were selected from BCA (2SEM) in the age group of 17-20 year using pre – post design. The Agnihotri self confidence inventory was used. The Nadi Shodhana Pranayama was practiced daily 15-20 minutes for 2 weeks. The Result revealed that there was a significant effect of practicing Nadi Shodhana Pranayama on self confidence.

**Swami Dayananda Sagar (2012)** conducted a study on effectiveness of Nadi Shodhana Pranayama on psychological and stress related disorders in students. A convenience sample of 46 students was randomly assigned to Experimental 21 and

control groups 25. Proper training was given by a skilled teacher and a 30-minute practice of Nadi Shodhana Pranayama daily. The result revealed that there was significant improvement in 68 percent decrease in anger, anxiety and sadness. Also the benefits such as well being, mood, attention, mental focus, and stress were maximized.

**Ashleigh Wheeler, Anna Jenson (2012)** conducted a study to assess the stress level and the stimuli that were responsible for the stress among the adolescents. A sample of 30 undergraduate and 30 postgraduate students was randomly chosen out of which 15 boys and 15 girls for each group were selected. The stress assessment questionnaire was administered on these subjects. It assesses the stress level due to frustration and inhibition, overload, time-urgent, aggressive behavior and the coping strategy. The result analyzed revealed that stress due to all the three stimuli was significantly higher at 0.05 level of significance among girls in comparison to the boys, irrespective of undergraduate and postgraduate categories.

**Dureha D K et.al (2010)** conducted a study to reveal the effectiveness on Nadi Shodhana Pranayama on physical and mental stress. Sample size was 59 consisting of 27 males and 32 females. Practice of Nadi Shodhana Pranayama was done for 2 months, 1 hour/day for 5 days. The stress questionnaire was used and the autonomic function tests were done before and after the practice of Nadi Shodhana Pranayama. The result analyzed revealed that stress level has reduced after practicing various Pranayama as evident by decrease in total stress score which is highly significant.

**Section 2.3: Reviews related to Nadi Shodhana Pranayama on General Wellbeing**

**Ganesh B.R (2015)** conducted a study to assess the effect of slow and fast phased Pranayama on quality of life and pain in physiotherapy girls with primary dysmenorrhoea. 90 Unmarried girls under the age group of 18-25 with primary dysmenorrhoea were randomly assigned to the experimental group (n=45) and control Group (n=45). Moosmenstrual distress questionnaire (MMDQ) ,Numerical pain rating scale for pain, Quality of life scale were administered at baseline, after 1st menstrual cycle and follow-up after 2nd menstrual cycle. The experimental group subjected to

slow Pranayama (Nadi Shodhana) and control Group was subjected to fast Pranayama (Kapalbhati).The result revealed that there was a Significant (P<0.0001) improvement in quality of life and pain scores after intervention.

**Sudhir GK et.al (2015)** conducted a study to assess the effectiveness of alternate nostril breathing (Nadi Shodhana Pranayama) amongst medical students .30 medical students belonging to various phases of MBBS were assessed through biofeedback instrument and baseline parameters like pulse rate, respiratory rate, EMG, EEG, GSR and temperature were recorded. The group was supervised to practice alternate nostril breathing 20 minutes each day for 3 months. The parameters were re-assessed and compared. The result revealed that there was a significant relaxation achieved by the subjects following Pranayama for 3 months as compared to baseline (p<0.005).

**Dr. Kamakhya Kumar & Dr. Somdutta Tiwary (2014)** conducted a study to assess the effect of Nadi Shodhana Pranayama over academic anxiety level among college going students. 30 students were selected through random sampling for the Nadi Shodhana Pranayama at a inter college of a developing town of Uttrakhanda and were exposed to Nadi Shodhana Pranayama practice daily for half an hour for 45 days. The statistical results showed a significant reduction in the academic anxiety level of the subjects.

**Baiju Abraham (2014)** conducted a study to assess the effects of a 6 week Nadi Shodhana Pranayama training on cardiopulmonary parameters. A group of 30 male healthy subjects were selected from department of physical Education, Guru Nanak Dev University, Amritsar (Punjab, India), aged 18 – 24 years. The Experimental (N-15) subjected to a 6-week Nadi Shodhana Pranayama training programme. This lasted 6 weeks and consisted of daily sessions, lasting 30 min. The Results analyzed revealed that the vital capacity significantly improved (P<0.01) in Experimental Group compared with the Control Group.

**AnandaBhavanan et.al (2014)** conducted a study to assess effects of uninostril and alternate nostril Pranayama on cardiovascular parameters and reaction time. Subjects (13 females and 7 males) regularly attending yoga sessions at the Centre for Yoga Therapy, Education, and Research (CYTER) thrice weekly

for more than 3 months were recruited for the study by convenience sampling. Participants were instructed to focus their mind on their breath and ensure it was slow, deep, and regular on each of the 6 days, they performed nine rounds. The result analyzed revealed that there was a significant differences in pre-post, intra-group comparisons ($p<0.05$)

**Amy Wentraub (2014)** conducted a study to compare a month of regular slow breathing practice like alternate nostril Nadi Shodhana to rapid breathing practice like skull shining Kabalabhati. In this randomized trial, involving approximately 90 healthy female (72) and male (19) subjects, the subjects practiced 30 minutes a day, three times a week, and were encouraged to continue their practice at home. The Results of the study shows that both slow and fast Pranayama practices have beneficial effect on PFT.

**Manju et.al (2014)** conducted a study an experimental is to find the effect of yogic intervention on children suffering from Autism Spectrum Disorder. 30 children suffering from Autism Spectrum Disorder were selected from Abhiprerna Foundation, Haridwar for the study. The age of the subjects ranged from 5 to 16 years. Purposive sampling was used for collection of the sample. Yogic practices including OM Chanting, Asana, and Pranayama were used as intervention for a period of 3 months. The result analysis revealed that there was statistically significant reduction in the symptoms of autism in children after a period of 3 months.

**Kamakhya Kumar (2014)** conducted a study to observe the effect of Nadi Shodhana Pranayama over academic anxiety level among college going students in Uttrakhanda. 30 students were selected through random sampling for the Nadi Shodhana Pranayama and were exposed to yogic practice daily for half an hour for 45 days. The result analyzed revealed that there was a significant reduction in the academic anxiety level of the subjects.

**Varsha Gupta (2014)** conducted a study to assess the immediate effect of Nadi Shodhana Pranayama on some selected parameters of cardio respiratory and mental efficiency in SMS Medical College, Jaipur, India. Students of both sexes 30 students aged 17-20 years were recruited for the study. The participants were trained to perform Nadi Shodhana Pranayama for 20 minutes.

Nadi Shodhana Pranayama practice for 20 minutes showed statistically significant difference ($p<0.05$) in Heart Rate (HR), Systolic Blood Pressure (SBP), Diastolic Blood Pressure (DBP), Reaction Time (RT) and Peak Expiratory Flow Rate (PEFR).

**Mooventhan, Vitthal Khode (2014**) conducted a study to evaluate the effect of Nadi Shodhana Pranayama and OM chanting on pulmonary function in healthy individuals. A total of 82 subjects were randomized into the study group ($n$ = 41) and control group ($n$ = 41). Baseline assessment was performed before intervention for both groups. Study group practiced Nadi Shodhana Pranayama and OM chanting for the duration of 10 min (5 min for each practice)/day for the period of 6 days/week for 2 weeks. After intervention post-assessment was performed for study group and Control group. The result revealed that there was a significant improvement in peak expiratory flow (PEF), forced expiratory flow (FEF) and maximal voluntary ventilation (MVV) along with a significant reduction in weight in Study group compared with control group.

**Vijay Kumar Singh (2013)** conducted a study to observe the effect of Nadi Shodhana Pranayama (NSP) on blood Hb of the subjects with the age range 20-40 years. For this 40 subjects composed of 20 males and 20 females were drawn from Yug-Shilpi Training of Shantikunj, Haridwar in by using Simple Random Sampling without replacement. Pre-post data were noted before and after intervention of NSP for 30 days by using Sahli's haemometer. The result analyzed revealed that there was a significant at p<.0.05.

**S. Dhivyalakshmi, K. Murugavel (2013)** conducted a study to find out effects of varied combinations asana, Pranayama and core training practices on physiological psychological variables of working middle aged women. The study was conducted at Vethathri Maharishi Trust in Sirumugai .The sample consisted of 60 middle aged women age ranged between 35and 50 years selected to through random sampling technique. The control group was not given any treatment and the experiment group was given asana, Pranayama and core training programme was given 6 days per week for a period of 8 weeks. The result analyzed revealed that there was a significance at P< 0.05 level.

**Sivapriya D V et.al (2012)** conducted a study to assess the effect of Nadi Shodhana Pranayama on respiratory parameters in school students. 115 school students aged 8 to 14 years studying in Visa Nursery & primary school, Chennai were recruited for the study. Healthy student with no history of present and past illness were selected. The participants were trained to perform Nadi Shodhana Pranayama and the study was done for 45 days. The respiratory parameters PEFR, FVC, FEV1 & RR were measured before and after practice of Pranayama. The result revealed that there was a significant increase in PEFR, FVC, and FEV1.

**Anurag Joshi et.al (2011)** conducted a study to assess the effect of Nadi Shodhana Pranayama to enhance wellbeing Among Engineering Students. 15 engineering students who volunteered where conveniently selected to practice alternate nostril breathing (Nadi Shodhana Pranayama) for 3 months. Pre test and post test level of general wellbeing assessed using Likert's five point wellbeing scales. The result analyzed revealed that post test level of wellbeing were enhanced. 75% of the subjects gained in terms of Feeling Healthy, 80% of the subjects gained in terms of memory recall, 75% of the subjects gained in terms of mental stress relief and 90% in terms of physical relaxation.

# CHAPTER - 3

## RESEARCH METHODOLOGY

This chapter describes the methodology adopted in this study to assess the Effectiveness of Nadi Shodhana Pranayama on General Wellbeing among Adolescents Studying in Selected School at Tiruvannamalai.

This study includes Research approach, Research design, Variables, Setting, Population, Sample, Sample size, Sampling technique, Criteria for Sample selection, Development and Description of tool, Scoring procedure, Content validity, Pilot study, Reliability of the tool, Procedure for data collection and Plan for data analysis.

### 3.1 RESEARCH APPROACH

The research approach used in this study was Quantitative research approach

### 3.2 RSEARCH DESIGN

Research design is the researchers overall plan for obtaining answers to research question **(Polit, 2008).**

The research design adopted for this study is pre test and post test design basic experimental design which comes under True Experimental design.

| GROUP | PRE TEST | INTERVENTION | POST TEST |
|---|---|---|---|
| **EXPERIMENTAL** | RE 1 | X | RE 2 |
| **CONTROL** | RC 1 | - | RC 2 |

**Schematic representation of true experimental design**

Where,

R - Randomization

E - Experimental Group

C - Control Group

X - Demonstration of Nadi Shodhana Pranayama

1 - Pretest

2 - Post test

In this study, the pre test level of General Wellbeing in the Experimental Group and Control Group was assessed by using Modified General Wellbeing Scale consisting of 25 items followed by teaching and demonstration of Nadi Shodhana Pranayama for 45 minutes per day. At the end of the 4th week, the post test level of General wellbeing was obtained from the Adolescents of Experimental Group and Control Group by using same Modified General wellbeing Scale.

## 3.3 VARIABLE

### Independent Variable

The independent variable for the study is Nadi Shodhana Pranayama.

### Dependent Variable

The dependent variable for the study is General wellbeing among adolescents

### Extraneous Variables

The extraneous variables were Age, Gender, Birth order, Educational status of father, Educational status of mother, Occupational status of father, Occupational status of mother, Monthly income, Type of family, Area of residence , Dietary pattern and Type of physical activity.

## 3.4 SETTING OF THE STUDY

The Study was conducted in Sri Srinivasa High school at Tiruvannamalai. Sri Srinivasa High school is Co-Education school which has classes from 6th to 10th standard. Total number of school strength was 275 students. The strength of Adolescents between the age group of 13 to 16 years studying in Sri Srinivasa High School were 112. The school is 4 storeyed building which has 5 class rooms for each floor and auditorium in the 3rd floor.

## 3.5 POPULATION

Population is the entire set of individuals or objects having some common characteristics. On this study, population was adolescents in the age group of 13-16 years studying in the school located in Tiruvannamalai.

**Accessible Population:**

Accessible population for the study was Adolescents between 13 to 16 years of age studying in Sri Srinivasa high school at Tiruvannamalai.

**3.6 SAMPLE:**

Sample refers to a subset of a population selected to participate in a research study. The study sample comprises of Adolescents between 13 to 16 years of age who satisfy the inclusive criteria and exclusive criteria.

**3.7 SAMPLE SIZE:**

The sample size is 60 adolescents (30 in Experimental group & 30 in Control group).

**3.8 SAMPLING TECHNIQUE**

In this study, simple random sampling technique by using lottery method was adopted to select the subjects who met the inclusive criteria. Simple random sampling procedure was employed to select the study participants. There were pieces of paper that were written E or C, the word E was used to represent the experimental group, and C was used to represent the control group. Once the piece of paper was chosen, it was not included in the sample again and each participant was allowed to pick only once.

**3.9 CRITERIA FOR SAMPLE SELECTION**

**Inclusive Criteria**

1. Adolescents studying in $9^{th}$ standard.
2. Adolescents in the age group between 13 to 16 years
3. Adolescents who are willing to participate in the study.
4. Adolescents who are available during the data collection period of the study.

**Exclusive Criteria**

1. Adolescents who are physically challenged
2. Adolescents who have attended / attending yoga class regularly
3. Adolescents with critical / chronic illness

## 3.10 DEVELOPMENT AND DESCRIPTION OF THE TOOL

Tool was developed from extensive review of literature, internet source and opinion of the experts.

The tool used for the present study, was an interview schedule. The general well being level was assessed by modified general well being scale 25 item which is modified tool.

The tool used for data collection has 2 sections.

Section A: Demographic variables

Section B: Tool to assess the level of General wellbeing

### SECTION A: DEMOGRAPHIC VARIABLES

This section consists of demographic variables such as Age, Gender, Birth order , Educational status of father, Educational status of mother, Occupational status of father, Occupational status of mother ,Monthly income, Type of family, Area of residence , Dietary pattern and Type of physical activity.

### SECTION B: TOOL TO ASSESS THE LEVEL OF GENERAL WELLBEING

The modified general wellbeing scale is comprehensive assessment tool used to assess the General wellbeing among the adolescents. The scale has 25 Questions – each relating to different aspects of an adolescent life.

**Method of scoring:**

| S. No | LEVEL OF GENERAL WELL BEING | SCORES |
|---|---|---|
| 1. | High Positive outcome | 91-125 |
| 2. | Medium positive outcome | 61-90 |
| 3. | Low positive outcome | 31-60 |
| 4. | Negative outcome | 0-30 |

## 3.11 CONTENT VALIDITY

Validity is the degree to which an instrument measures what it is intended to measure **(Polit, 2008).**

The content validity of the tool was established on the basis of opinion of one Medical Expert, one Yoga Therapist, seven Nursing Experts specialized in Child Health Nursing and one Psychologist. Based on the suggestions of the experts changes were made in the tool after consultation with research guide.

## 3.12 ETHICAL CONSIDERATION

The ethical principles followed in the study were:

**A. Beneficence**

**a) Freedom from harm and discomfort**

Participants were not subjected to risks for harm or discomfort risks for harm or discomfort during the study period.

**b) Protection from explanation**

Participants were protected that their participation or information provided by them would not be used against them in any way.

**B. Respect for human dignity**

The investigator followed the second ethical principle of respect for human dignity. It includes the right to determination and the right to self-disclosure.

**a) The right to self determination**

The researcher gave full freedom to the participants to decide voluntarily whether to participate in the study or to withdraw from the study and the right to ask questions.

**b) The right to full disclosure**

The researcher has fully described the nature of the study, the person's right to refuse participation and the researchers responsibilities based on which both oral and written informed consent was obtained from the participants.

**C. Justice**

The researcher adhered to the third ethical principal of justice; it includes participants' right to fair treatment and right to privacy.

**a) Right to fair Treatment**

The researcher selected the study participants based on the research requirements. The investigator followed the routine for control group.

**b) Right to privacy**

The researcher maintained the participants' privacy throughout the study.

**D. Confidentiality**

The researcher maintained confidentiality of the data provided by the study participants.

## 3.13 RELIABILITY OF THE TOOL

Reliability is defined as the extent to which the instrument yields the same result on repeated measures. It is thus concerned with consistency, accuracy, stability, and homogeneity.

Reliability of the tool was tested by the investigator and other child health nursing expert personnel who were trained in the use of tools.

The Tamil version of modified general wellbeing scale was tested using the inter-rater reliability method. The reliability score was r = 0.83. Hence, the tool was considered highly reliable for proceeding with the study.

### 3.14 PILOT STUDY

Pilot study is a small scale version or trial run designed to test the methods to be used in a larger group, more rigorous study which is sometimes referred to as the parent study **(Polit, 2008).**

Pilot study is a trial for main study to test the reliability, appropriateness and feasibility of the study and the tool. The formal permission was obtained from principal of Vignesh Nursing College. The investigator obtained permission from Sri Srinivasa High School at Tiruvannamalai. The study period is 6 days in weeks. The investigator selected 10 subjects by using simple random sampling technique method. 5 sample was assigned to experimental group and 5 samples to control group.

The investigator explained about the aims, purpose, advantages of the study to the experimental group and control group. After obtaining the demographic details, pre test was done regarding the General Wellbeing. The investigator gave intervention Nadi Shodhana Pranayama which is a simplest but powerful technique that deeply relaxes the mind and body. Here slow, deep, rhythmic breath is taken first through the right nostril by closing the left nostril and is held for 5 – 8 seconds and released through the left nostril closing the right nostril. Then in the same manner breath is taken through the left nostril and exhaled through the right nostril. Such 10- 15 cycles are repeated at a stretch for 45minutes to the experimental group at 3.30pm for the period of 6 days. The post test of pilot study concludes that there is a significant improvement in general wellbeing of experimental group at $p<0.001$ and no significant improvement in general wellbeing of control group. The pilot study revealed that the study was feasible.

### 3.15 PROCEDURE FOR DATA COLLECTION

Data collection is the gathering of information needed to address the research problem. The word data means information that is systematically collected in the course of the study.

This study was conducted at Sri Srinivasa High School, Tiruvannamalai. The data were collected for the period of 4 weeks in the month of December 2015. Prior permission from the authorities was obtained. The objective purpose and risk of the

study was explained and confidentiality was maintained. The investigator gave brief information about self and the purpose of the study to the subjects.

During the data collection procedure the investigator introduced her to the adolescents and established rapport with the subjects. They were assured that no physical or emotional harm would be done in the course of the study.

The study subjects were selected by simple random sampling technique based on sample selection criteria. A total 60 adolescents were recruited in the study for experimental and control group each group contains 30 subjects. The subjects were made to sit comfortably in a well-ventilated room and confidentiality regarding the data were assured. After obtaining the informed consent from parents and assent from adolescents for willingness to participate in the study was obtained. The investigator collected the data related to demographic variables and conducted the pretest to assess the level of general wellbeing in experimental and control group which took around 25-30 min.

The Adolescents of Experimental Group was taught to practice Nadi Shodhana Pranayama daily from Monday to Friday, 5 days per week from 4 to 4.45 pm for 5 days by investigator (5sessions). The adolescents did return demonstration of Nadi Shodhana Pranayama daily from Monday to Friday, 5 days per week from 4 to 4.45 pm for 5 days under the supervision of investigator (15sessions). The Control Group received routine school activities. At the end of the fourth week (30th day), post test level of General wellbeing among Adolescents was assessed by using Modified General wellbeing scale.

### 3.16 PLAN FOR DATA ANALYSIS

Data will be analyzed by using both descriptive and inferential statistics.

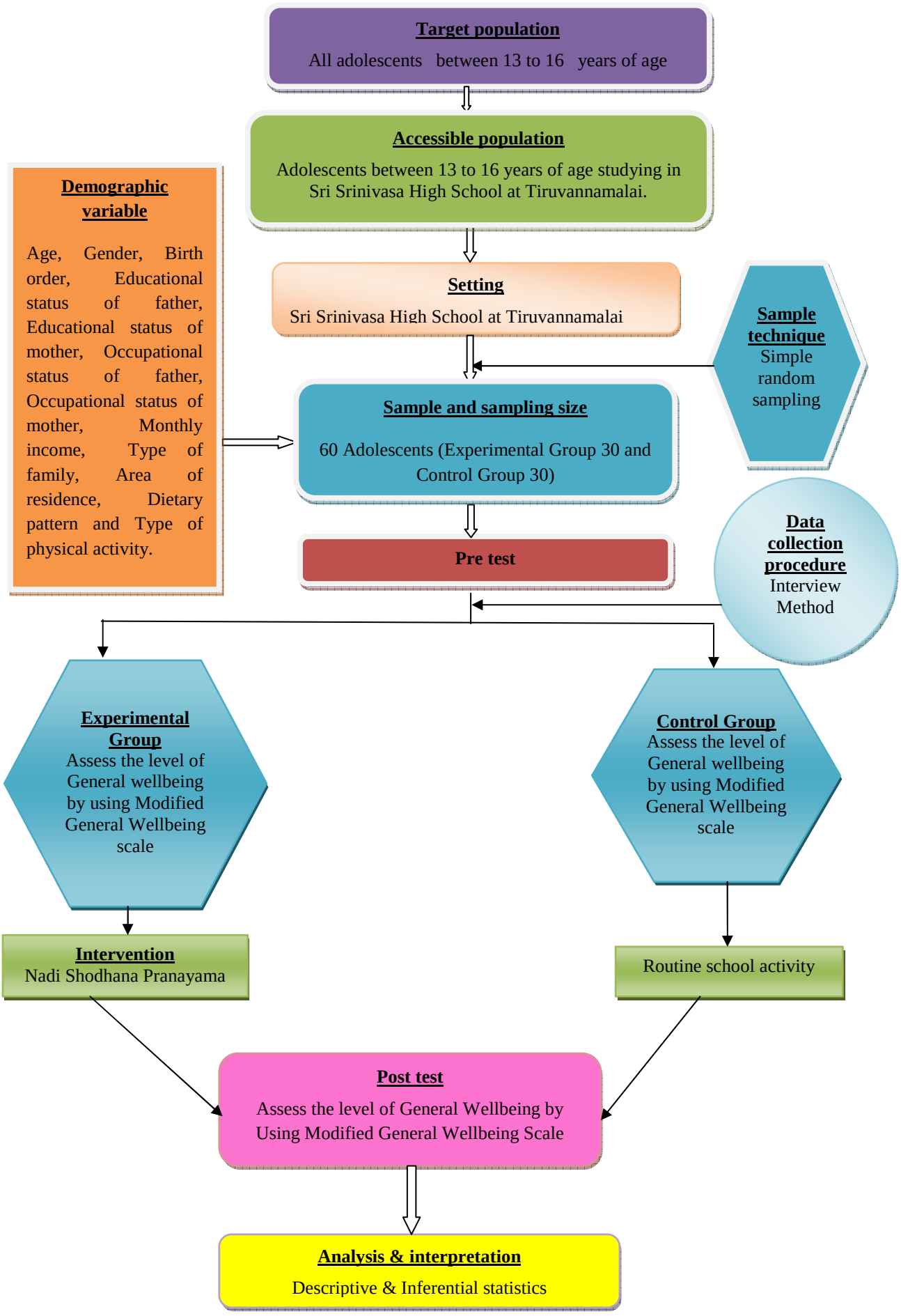
**Descriptive Statistics**

1. Frequency and percentage distribution used to analyze the demographic variables of Adolescents.
2. Mean and standard deviation used to assess the level of General Wellbeing among Adolescents.

**Inferential Statistics**

1. Paired “t” test will be used to compare the pre and post test level of General Wellbeing in Experimental and Control Group.
2. Unpaired “t” test will be used to compare the pre and post test level of General Wellbeing among Adolescents between Experimental and Control Group.
3. ANOVA used to associate the pre and post test mean difference level of General Wellbeing among Adolescents in Experimental and Control Group with this selected demographic variables.

**FIG. 2 SCHEMATIC REPRESENTATION OF RESEARCH DESIGN**



# CHAPTER – 4

## DATA ANALYSIS AND INTERPRETATON

This chapter deals with the analysis and interpretation of data collected from 60 Adolescent students to assess the effectiveness of Nadi Shodhana Pranayama on level of General wellbeing among adolescent at Sri Srinivasa High School, Tiruvannamalai. Statistical analysis is a method for rendering quantitative information meaning full and intelligible. This enables the researcher to summaries, organize, evaluate, interpret and communicate information in numerical form.

The data collected for the study were grouped and analyzed as per the objectives set for the study. Data analysis includes both descriptive and inferential statistics.

### ORGANIZATION OF DATA

The data have been grouped, tabulated and organized below as follows:

**Section 4.1 :** Demographic variables of Adolescents in Experimental and Control Group.

**Section 4.2 :** Assessment of pre and post test level of General wellbeing among Adolescents in Experimental and Control Group.

**Section 4.3 :** Comparison of pre and post test level of General wellbeing among Adolescents in Experimental and Control Group.

**Section 4.4 :** Comparison of pre and post test level of General wellbeing among Adolescent between Experimental and Control Group.

**Section 4.5 :** Association of pre and post mean difference level of General wellbeing among Adolescents with their selected demographic variables in Experimental and Control Group.

**SECTION 4.1: DESCRIPTION OF DEMOGRAPHIC VARIABLES OF ADOLESCENTS ON LEVEL OF GENERAL WELLBEING IN EXPERIMENTAL AND CONTROL GROUP**

**Table 1: Frequency and percentage distribution of demographic variables in respect to Age, Gender, Birth order and Educational status of father.**

**N=60**

| S.No | Demographic Variables | Experimental Group | | Control Group | |
|---|---|---|---|---|---|
| | | f | % | f | % |
| **1** | **Age** | | | | |
| | a) 13-14 years | 24 | 80 | 20 | 67 |
| | b) 15-16 years | 6 | 20 | 10 | 33 |
| **2** | **Gender** | | | | |
| | a) Male | 12 | 40 | 14 | 46 |
| | b) Female | 18 | 60 | 16 | 54 |
| **3** | **Birth order** | | | | |
| | a) One | 9 | 30 | 9 | 30 |
| | b) Two | 14 | 47 | 11 | 37 |
| | c) Three | 6 | 20 | 7 | 23 |
| | d) Four | 1 | 3.0 | 3 | 10 |
| **4** | **Educational status of father** | | | | |
| | a) No formal education | 9 | 30 | 9 | 30 |
| | b) Primary school education | 8 | 27 | 4 | 13 |
| | c) High school education | 11 | 37 | 8 | 27 |
| | d) Higher secondary school | 1 | 3.0 | 3 | 10 |
| | e) Any degree | 1 | 3.0 | 6 | 20 |

Table 1 shows the frequency and percentage distribution of demographic variables in respect to age, gender, birth order and educational status of father.

In Experimental Group, with regard to the Age in years, majority of the subjects 24 (80%) were between the age group of 13-14 years and 6 (20%) were between 15-16 years of age.

In Experimental Group, with regard to gender, majority of the subjects 18 (60%) were female and, 12 (40%) were male.

In Experimental Group, with regard to birth order, 14 (47%) majority of the children second born child, 9 (30%) were first born child, 6(20%) were third born child and 1 (3.0%) were fourth born children.

In Experimental Group, with regard to the Educational status of father, 11 (37%) had completed their high school education, 9(30%) had no formal education, 8 (27%) had completed their primary education, 2(6%) had completed their higher secondary and degree.

In Control Group, with regard to the Age in years, majority of the subjects 20 (67%) were between the age group of 13-14 years and 10 (33%) were between the age group of 15-16years.

In Control Group, with regard to gender, majority of the subjects 16 (54%) were female and, 14 (46.66%) were male.

In Control Group, with regard to birth order, majority of the 11 (37%) children second born child, 9 (30%) were first born child, 7(23%) were third born child and 4 (13%) were fourth born children.

In Control Group, with regard to Educational status of father, 9 (30%) had no formal education, 8 (27%) had completed their high school education 6 (20%) had completed their degree, 4 (13%) were completed their primary education, 3 (10%) were completed their Higher Secondary Education.

**Table 2: Frequency and percentage distribution of demographic variables in respect to Educational status of mother, Occupational status of father, and Occupational status of mother and Monthly income of family.**

**N = 60**

| S.NO | Demographic Variables | Experimental Group | | Control Group | |
|---|---|---|---|---|---|
| | | F | % | f | % |
| 5 | **Educational status of mother** | | | | |
| | a) No formal education | 13 | 44 | 8 | 27 |
| | b) Primary school education | 6 | 20 | 6 | 20 |
| | c) High school education | 7 | 24 | 7 | 23 |
| | d) Higher secondary school | 4 | 12 | 6 | 20 |
| | e) Any degree | - | - | 3 | 10 |
| 6 | **Occupational status of father** | | | | |
| | a) Unemployed | 1 | 3.0 | 1 | 3.0 |
| | b) Semi-skilled worker | 5 | 17 | 10 | 33 |
| | c) Skilled worker | 6 | 20 | 3 | 10 |
| | d) Professional | 2 | 6.0 | 0 | 0 |
| | e) Others | 16 | 54 | 16 | 54 |
| 7 | **Occupational status of mother** | | | | |
| | a) Unemployed | 6 | 20 | 11 | 37 |
| | b) Semi-skilled worker | 6 | 20 | 7 | 23 |
| | c) Skilled worker | 3 | 10 | 2 | 7 |
| | d) Professional | 0 | 0 | 0 | 0 |
| | e) Others | 15 | 50 | 10 | 33 |
| 8 | **Monthly family income** | | | | |
| | a) Rs 1000-4000 | 12 | 40 | 11 | 37 |
| | b) Rs 4001-8000 | 15 | 50 | 15 | 50 |
| | c) Rs 8001-12000 | 3 | 10 | 4 | 13 |
| | d) Rs above 12000 | - | - | - | - |

Table 2 shows the frequency and percentage distribution of demographic variables with respect to educational status of mother, occupational status of father, occupational status of mother and monthly income of family.

In Experimental Group, with regard to Educational status of mother, 13 (44%) had no formal education, 7 (24%) had completed their primary education, 6 (20%) had completed their high school education and 4 (12%) had completed their higher secondary education.

In Experimental Group, with regard to occupational status of father 16 (54%) belongs to other category, 6 (20%) were skilled worker, 5 (17%) semi skilled worker, 2 (6.0%) were professionals, and1 (3.0%) was unemployed.

In Experimental Group, with regard to occupational status of mother 15 (50%) belongs to other category, 6 (20%) was unemployed, 6 (20%) were semiskilled worker, 3 (10%) were skilled worker.

In Experimental Group, with regard to Monthly income of family 15 (50%) children belong to family with Monthly income of Rs.4001-8000, 12 (40%) children belong to family with Monthly income of Rs.1000 – 4000 and 3 (10%) belongs to family with Monthly income of Rs.8001-12000.

In Control Group, with regard to Educational status of mother, 8 (27%) had no formal education, 7 (24%) had completed their high School Education, 6 (20%) had completed their primary and Higher Secondary Education, 3 (9%) had completed their degree.

In Control Group, with regard to occupational status of father 16 (54%) belongs to other category, 10 (33%) were semi-skilled worker, 3 (10%) were skilled worker, 1 (3.0%) was unemployed.

In Control Group, with regard to occupational status of mother 11 (37%) was unemployed, 10 (33%) belongs to other category, 7 (24%) semiskilled worker, and 2 (6.0%) were skilled worker.

In Control Group, with regard to Monthly income of family 15 (50%) children belong to family with Monthly income of RS.4001-8000, 11 (37%) children belongs with Monthly income of Rs.1000 – 4000, 4 (13%) children belongs with Monthly income of RS.8001-12000.

**Table 3: Frequency and percentage distribution of demographic variables in respect to Type of family, Area of residence, Dietary pattern and Type of physical activity.**

**N = 60**

| S.NO | Demographic Variables | Experimental Group | | Control Group | |
|---|---|---|---|---|---|
| | | f | % | f | % |
| **9** | **Type of family** | | | | |
| | a) Nuclear family | 16 | 54 | 13 | 44 |
| | b) Joint family | 14 | 46 | 14 | 46 |
| | c) Broken family | - | - | 1 | 3.0 |
| | d) Extended family | - | - | 2 | 7.0 |
| **10** | **Area of residence** | | | | |
| | a) Rural | 27 | 90 | 27 | 90 |
| | b) Urban | 3 | 10 | 3 | 10 |
| **11** | **Dietary pattern** | | | | |
| | a) Vegetarian | 4 | 13 | 5 | 16 |
| | b) Mixed diet | 26 | 87 | 25 | 84 |
| **12** | **Type of physical activity** | | | | |
| | a) Mild | 14 | 47 | 10 | 33 |
| | b) Moderate | 12 | 40 | 16 | 54 |
| | c) Heavy | 4 | 13 | 4 | 13 |

Table 3 shows the Frequency and percentage distribution of demographic variables in respect to type of family, area of residence, dietary pattern and type of physical activity.

In Experimental Group, with regard to the Type of family, majority of the subjects 16(54%) belong to nuclear family and 14 (46%) belongs to joint family.

In Experimental Group, with regard to the Area of residence, majority of the subjects 27 (90%) were residing in rural area and 3 (10%) were residing in urban areas.

In Experimental Group, with regard to the Type of diet, 26(87%) subjects had mixed diet pattern and the remaining of the subjects 4(13%) were vegetarian.

In Experimental Group, with regard to type of physical activity 14 (47 %) children belongs to mild activity category, 12(40%) belongs to moderate activity category and 4 (13%) belongs heavy activity category.

In Control Group, with regard to the Type of family, majority of the subjects 14 (46%) belong to joint family, 13 (44%) belong to nuclear family, 2 (7.0%) Belongs to extended families and 1 (3.0%) belongs to broken family.

In Control Group, with regard to the Area of residence, majority of the subjects 27(90%) were residing in rural area and 3 (10%) were residing in urban area.

In Control Group, with regard to the Type of diet, 25 (84%) had mixed diet pattern and the remaining of the subjects 5 (16%) were vegetarian diet.

In Control Group, with regard to type of physical activity 16 (54%)children belongs to moderate activity category, 10 (33%) children belongs to mild activity category and 4 (13%) children belongs to heavy activity category.

SECTION 4.2: ASSESSMENT OF PRE AND POST TEST LEVEL OF GENERAL WELLBEING AMONG ADOLESCENTS WITHIN EXPERIMENTAL AND CONTROL GROUP

N=60

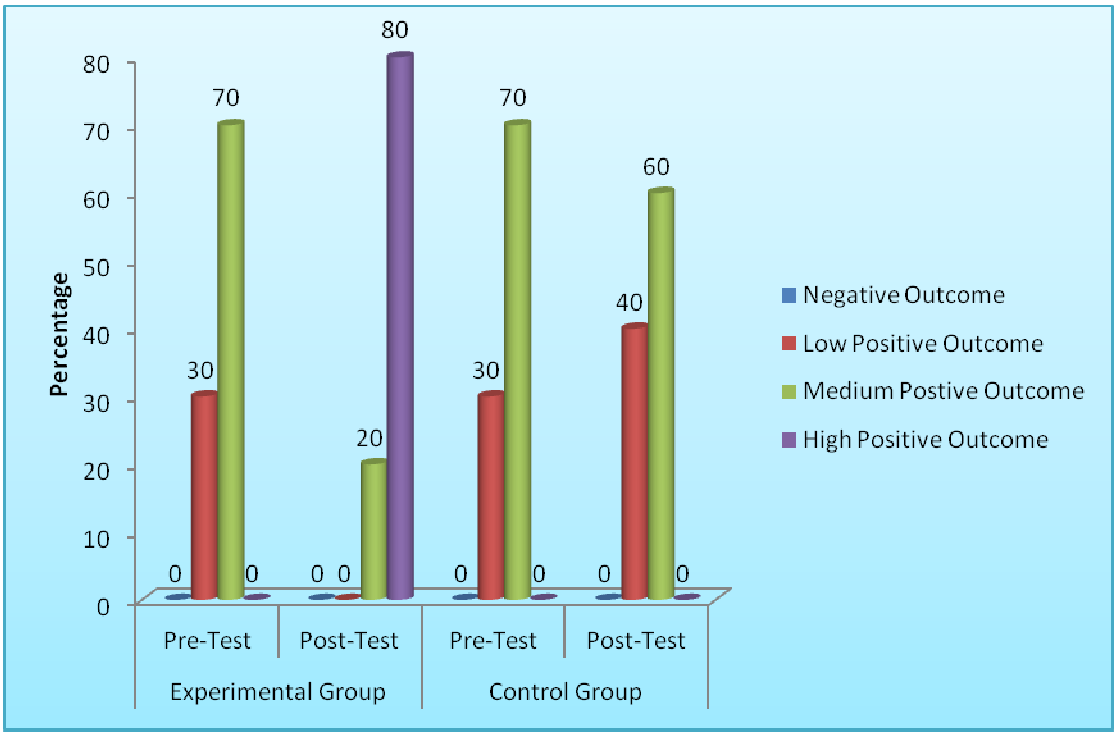



**Figure 3: Percentage distribution of Pre and Post test level of General Wellbeing in Experimental and Control Group.**

Figure 3 shows that, in Experimental Group, majority 21 (70%) had medium positive outcome and the remaining 9 (30%) had low positive outcome in the pre-test. Whereas, in the post test Experimental Group, after the implementation of Nadi Shodhana Pranayama 24 (80%) had high positive outcome and 6 (20%) had medium positive outcome.

In the pre test Control Group, majority 21 (70%) had medium positive outcome and the remaining 9 (30%) had low positive outcome in the pre-test. Whereas, in the post test Control Group, without implementation of Nadi Shodhana Pranayama 18 (60%) had medium positive outcome and 12 (40%) had low positive outcome.

**SECTION 4.3: COMPARISON OF PRE AND POST TEST LEVEL OF GENERAL WELLBEING AMONG ADOLESCENTS IN EXPERIMENTAL GROUPAND CONTROL GROUP**

**Table 4: Comparison of pre and post test level of General Wellbeing among adolescents in Experimental and Control Group.**

**N = 60**

| S.No | Group | Pre-test | | Post test | | Paired 't' test |
|---|---|---|---|---|---|---|
| | | Mean | SD | Mean | SD | |
| **1** | Experimental | 67 | 10.1 | 98.2 | 8.6 | $t=23.6^{***}$ $p<0.001$ S |
| **2** | Control | 65.6 | 10.9 | 62.8 | 9.6 | t=1.86 NS |

***p<0.05, **p<0.01, ***p<0.001, S-Significant, NS-Non significant**

The table 4 shows that, in Experimental Group, the pre test mean score of Level of General Wellbeing was 67 with S.D 10.1 and the post test mean score of level of general wellbeing was 98.2 with S.D 8.6. The calculated paired't' value t = 23.6 was found to be statistically significant at p<0.001 level. This clearly shows that the implementation of Nadi Shodhana Pranayama had shown a significant improvement in the post test level of General Wellbeing among Adolescent in the Experimental Group than the Adolescents in the Control Group.

In Control Group, the pre test mean score of general wellbeing was 65.6 with S.D 10.9 and the post test mean score of general wellbeing was 62.8 with S.D 9.6, and the calculated paired 't' value t = 1.86 was found to be statistically no significant at p>0.05 level. This clearly shows that practicing Nadi Shodhana Pranayama had shown a significant improvement their post test level of General Wellbeing in Experimental Group than the Adolescents in the Control Group.

**N=60**

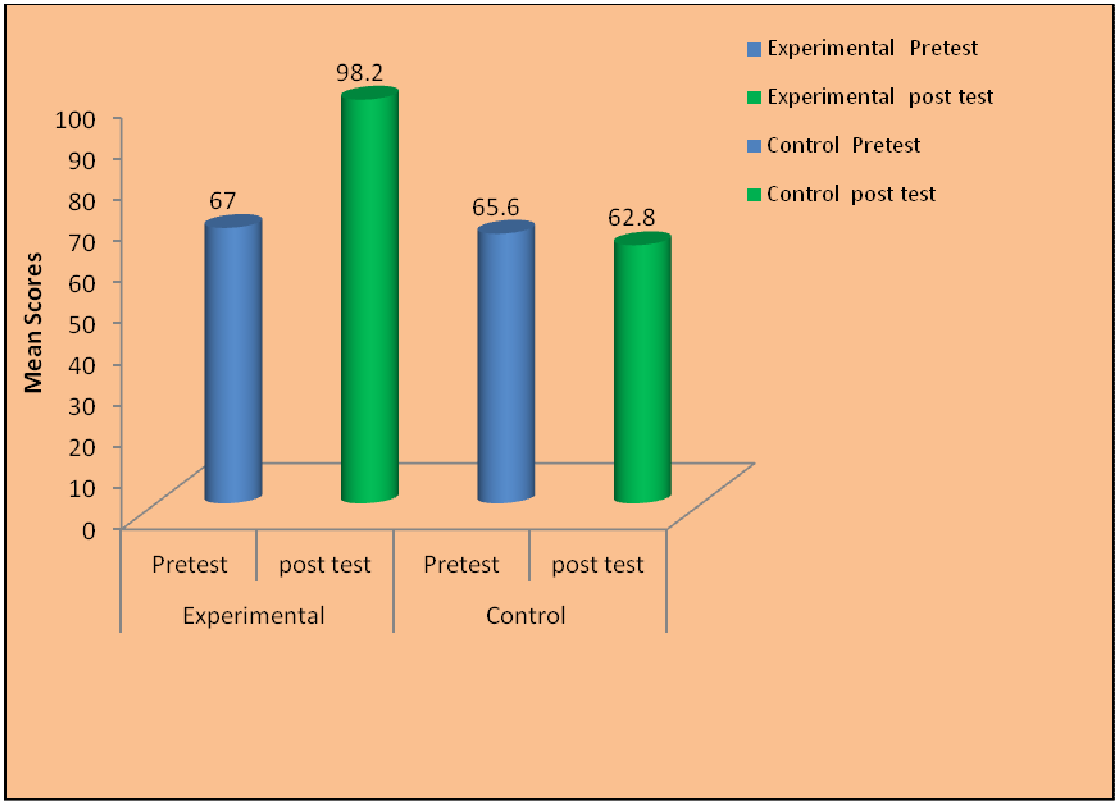



**Figure 4 Comparison of pre test and post test level of General Wellbeing among adolescents in Experimental and Control Group**

**SECTION 4.4: COMPARISON OF PRE AND POST TEST LEVEL OF GENERAL WELLBEING AMONG ADOLESCENTS BETWEEN EXPERIMENTAL AND CONTROL GROUP.**

**Table 5: Comparison of pre and post test level of General Wellbeing among adolescents between the Experimental and Control Group.**

| S.NO | Assessment | Group | Mean | SD | Unpaired 't' test |
|---|---|---|---|---|---|
| **1** | Pre test | Experimental | 67 | 10.1 | t=0.61 NS |
| | | Control | 65.6 | 10.9 | |
| **2** | Post test | Experimental | 98.2 | 8.6 | t=15.94 $S^{***}$ |
| | | Control | 62.8 | 9.6 | |

***p<0.05,**p<0.01, ***p<0.001 S-Significant, NS-Non significant**

Table 5 shows that, the pre test mean score of General Wellbeing in the Experimental Group was 67 with S.D 10.1 and the pre test mean score of General Wellbeing in the Control Group was 65.6 with the S.D was 10.9. The calculated unpaired't' value of t=0.61 was found to be statistically non significant at p>0.05 which indicates that there was no significant difference in the pre test level of general wellbeing between the Experimental and Control Group.

The post test mean score of General Wellbeing in the Experimental Group was 98.2 with S.D 8.6 and the post test mean score of General Wellbeing in the Control Group was 62.8 with the S.D was 9.6. The calculated unpaired' value of t=15.94 was found to be statistically significant at p<0.001, which indicates that there was difference in the post test level of General Wellbeing between the groups. This clearly shows that the practice of Nadi Shodhana Pranayama improves the level of General Wellbeing in the Experimental Group.

N=60

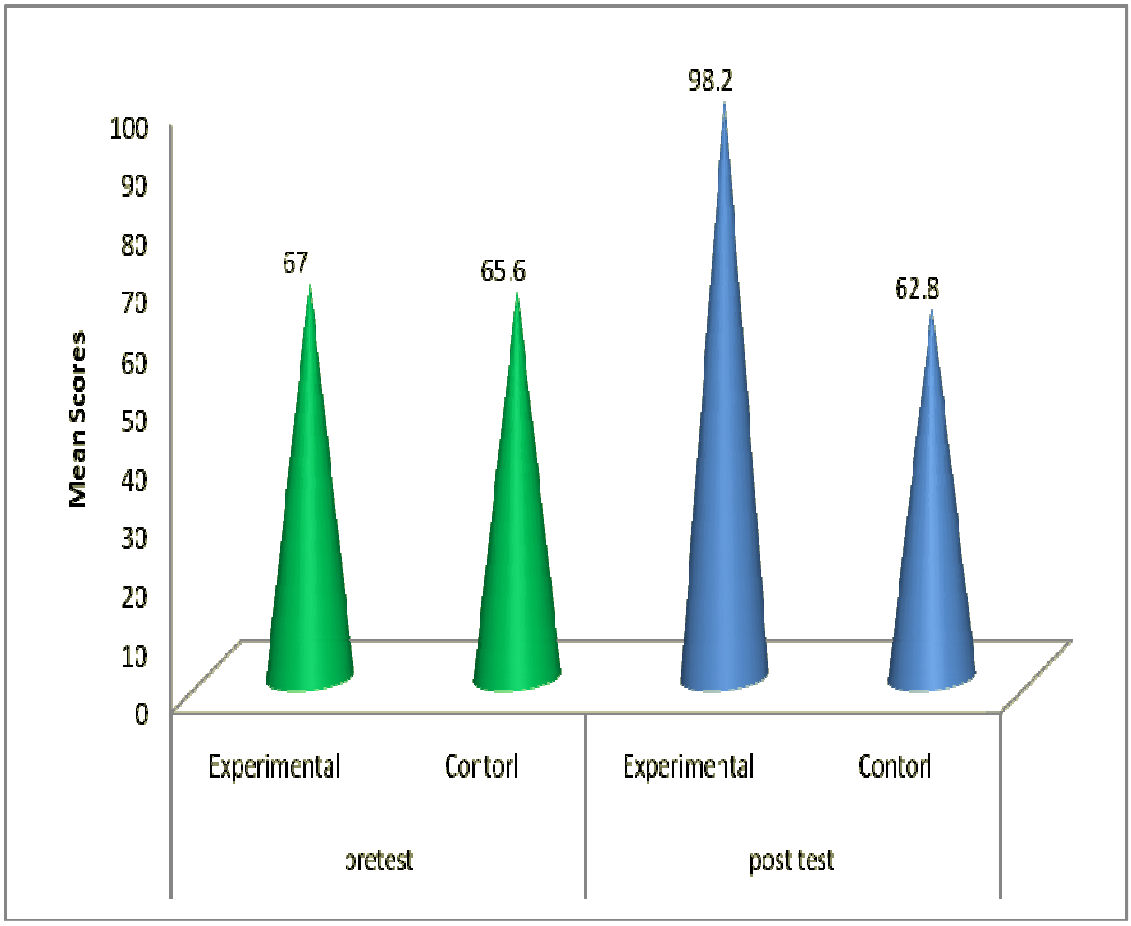



**Figure 5: Comparison of pre and post test level of General wellbeing among Adolescents between Experimental and Control Group.**

**SECTION 4.5: ASSOCIATION OF PRE AND POST TEST MEAN DIFFERENCE LEVEL OF GENERAL WELLBEING MONG ADOLESCENTS WITH THEIR SELECTED DEMOGRAPHIC VARIABLES IN THE EXPERIMENTAL GROUP.**

**Table 6: Association of pre and post test mean difference level of general wellbeing among adolescents with their selected demographic variables in the Experimental Group.**

**N=30**

| S.NO | Demographic Variables | Pre test | | Post test | | Mean Difference | | ANOVA |
|---|---|---|---|---|---|---|---|---|
| | | Mean | SD | Mean | SD | Mean | SD | |
| 1 | **Age** | | | | | | | t=2.449 S* P<0.05 |
| | a) 13-14 years | 67.1 | 9.78 | 103 | 10.1 | 35.9 | 0.32 | |
| | b) 15-16 years | 66.5 | 0.9 | 95 | 8.79 | 28.5 | 7.89 | |
| 2 | **Gender** | | | | | | | t=2.832 S* P<0.05 |
| | a) Male | 68 | 24.3 | 101.5 | 11.6 | 33.5 | 9.2 | |
| | b) Female | 66.2 | 10.1 | 126 | 27.40 | 59.8 | 17.3 | |
| 3 | **Occupational status of father** | | | | | | | |
| | a) Semi skilled worker | 75.6 | 11.45 | 103.8 | 11.86 | 28.2 | 0.41 | F=12.390 S*** P<0.001 |
| | b) Skilled worker | 67 | 8 | 105.6 | 9.52 | 38.6 | 1.52 | |
| | c) professional | 52.5 | 4.5 | 88 | 5.0 | 35.5 | 0.5 | |
| | d) Others | 64.5 | 10.61 | 98.9 | 10.13 | 34.4 | 23.79 | |
| 4 | **Monthly income** | | | | | | | F=4.477 S** P<0.012 |
| | Rs.1000-4000 | 66.3 | 11.5 | 98.6 | 10.3 | 32.3 | 1.3 | |
| | Rs.4001-8000 | 66.5 | 10.4 | 101.6 | 10.52 | 35.1 | 0.12 | |
| | Rs.8001-12000 | 107.6 | 3.85 | 72.3 | 8.57 | 35.3 | 4.72 | |
| | Above Rs. 12000 | - | - | - | - | - | - | |
| 5 | **Dietary pattern** | | | | | | | t=2.449 S* P<0.05 |
| | a) vegetarian | 65.5 | 8.87 | 101 | 9.0 | 35.5 | 0.13 | |
| | b) Mixed diet | 67.2 | 10.91 | 76.3 | 11.65 | 9.1 | 0.74 | |
| 6 | **Physical activity** | | | | | | | F=13.488 S*** P<0.001 |
| | a) Mild | 77 | 10.97 | 107 | 4.98 | 30 | 5.99 | |
| | b) Moderate | 61 | 9.05 | 94 | 9.59 | 33 | 0.54 | |
| | c) Heavy | 70.6 | 12.04 | 84 | 39.40 | 31.2 | 19.16 | |

*P<0.05, ** P<0.01, ***P<0.001, S-Significant

Table 6 shows the association of pre and post test mean difference level of General Wellbeing among adolescents with their selected demographic variables in the Experimental Group.

It was evident from the above table that there was a statistical significant association of pre and post test mean difference level of general wellbeing with age and dietary pattern level at $p < 0.05$, Gender and monthly income level at $p < 0.01$, physical activity and occupational status of father level at $p < 0.001$ and there is no statistically significant in the Experimental Group with other demographic variables.

**Table 7: Association of pre and post test mean difference level of General Wellbeing among adolescents with their selected demographic variables in the Control Group.**

**n=30**

| S.NO | Demographic variables | Pre test | | Post test | | Mean Difference | | ANOVA |
|---|---|---|---|---|---|---|---|---|
| | | Mean | SD | Mean | SD | Mean | SD | |
| **1** | **Age** | | | | | | | |
| | a) 13-14 years | 65 | 8.3 | 59..5 | 8.6 | 5.5 | 0.3 | t=1.98 P=0.0057 NS |
| | b) 15-16 years | 67 | 7.73 | 64.6 | 5.6 | 2.4 | 2.13 | |
| **2** | **Birth Order** | | | | | | | |
| | a) One | 67.1 | 9.24 | 68.45 | 9.10 | 1.35 | 0.14 | F=0.208 P=0.890 NS |
| | b) Two | 68 | 20.1 | 69.5 | 20.98 | 1.5 | 0.88 | |
| | c) Three | 66.5 | 0.78 | 67.33 | 1.20 | 0.83 | 0.05 | |
| | d) Four | 64.5 | 7.61 | 65.05 | 9.20 | 0.55 | 7.06 | |

N.S – Not Significant

Table 7 shows the association of pre and post test mean difference level of General wellbeing among adolescents with their selected demographic variables in the Control Group**.**

It was evident from the above table that there was no statistical significant association of pre and post test mean difference level of General Wellbeing with selected demographic variables in Control Group at p> 0.05 level.

# CHAPTER – 5

## DISCUSSION

The study was conducted to evaluate the effectiveness of Nadi Shodhana Pranayama on level of general wellbeing among adolescents.

The discussion is based on the objectives, review of literature and null hypothesis Specified in this study.

### 5.1 The first objective was to assess and compare the pre and post test level of General Wellbeing among Adolescents in Experimental and Control Group.

The analysis on pre test level of General Wellbeing in Experimental group revealed that 21 (70%) of subjects had Medium positive outcome and 9 (30%) subjects had Low positive outcome.

The analysis on post test level of General Wellbeing in Experimental group revealed that 24 (80%) of subjects had High positive outcome and 6 (20%) subjects had Medium positive outcome.

The analysis on pre test level of General Wellbeing in Control Group revealed that 21 (70%) subjects had Medium positive outcome and 9 (30%) subjects had Low positive outcome.

The analysis on post test level of General Wellbeing in Control Group revealed that 18 (60%) subjects had Medium positive outcome and 12 (40%) subjects had Low positive outcome.

In Experimental Group, the pre test mean score was 67 with standard deviation 10.1 and post test mean score was 98.2 with standard deviation 8.6. The calculated paired ‘t’ value 23.6 which was highly significant at $p<0.001$. This clearly shows that the implementation of Nadi Shodhana Pranayama had enhanced the General well being among Adolescents in the Experimental Group than the Control Group.

This study finding was consistent with the study conducted by **Dureha D (2013)** to assess the effectiveness Nadi Shodhana Pranayama on physical and mental stress. Sample size was 59 consisting of 27 males and 32 females. Practice of Nadi Shodhana Pranayama was done for 2 months, 1 hour/day for 5 days. The stress questionnaire was used and the autonomic function tests were done before and after the practice of Nadi Shodhana Pranayama. The result revealed that stress level has reduced after the practice of Pranayama as evident by decrease in total stress score which is highly significant. Hence the null hypothesis $NH_1$ which was stated earlier that **"There will be no significant difference between pre and post test level of General Wellbeing among Adolescents in Experimental and Control Group at P <0.05 level of significance"** was rejected for Experimental Group at $p<0.001$ level and accepted for Control Group at $p>0.05$ level.

## 5.2 The second objective to assess and compare the pre and post test level of General Wellbeing among Adolescents between Experimental and Control Group.

The analysis of the pre test level of General Wellbeing revealed that the mean score was 67 with S.D 10.1 in Experimental Group. The pre test mean score was 65.6 with S.D 10.9 in Control Group. The calculated unpaired 't'value was 0.61 which was found to be non significant at $p>0.05$ level.

The analysis of the post test level of General wellbeing revealed that the mean score was 98.2 with S.D 8.6 in Experimental Group.

The analysis of the post test level of General wellbeing revealed that the post test mean score was 62.8 with S.D 9.6 on the level of General wellbeing in control group. The Calculated unpaired 't' value 15.94 was significant at $p<0.001$ level, which indicates that there was significant difference in the post test level of General wellbeing between the Experimental and Control Groups. This clearly shows that the practice of Nadi Shodhana Pranayama improves the level of General wellbeing in the Experimental group.

Hence, the Null hypothesis $NH_2$ which was stated that **"There will be no significant difference between pre and post test level of General Wellbeing among Adolescents between Experimental and Control Group at P< 0.05 level of significance "** was rejected in experimental group at p<0.001 level and was accepted in control group at p>0.05 level.

**5.3 The third objective was to determine the association in the mean difference level of General Wellbeing with selected demographic variables in Experimental and Control group**.

There is a statistically significant association in the pre and post test mean difference level of General wellbeing with age and dietary pattern level at p <0.05, Gender and monthly income at p<0.01 level, physical activity and occupational status of father level p<0.001 and there is no statistically significant difference in the Experimental Group with other demographic variables.

There is no statistically significant association in the pre and post mean difference level of general wellbeing with selected demographic variables at p>0.05 level in the control Group. Hence, the Null hypothesis $NH_3$ which was stated earlier that "**there will be no significant association in the pre and post test mean difference level of General Wellbeing with selected demographic variables among Adolescents in Experimental and Control Group at P <0.05 level of significance"** level was rejected with regard to the selected demographic variables like age ,gender, educational status of father, occupational status of father ,monthly income dietary pattern and physical activity and accepted with regard to other variables in the experimental group and it was accepted for all selected demographic variables in the Control Group.

# CHAPTER – 6
# SUMMARY, CONCLUSION, IMPLICATIONS, RECOMMENDATIONS AND LIMITATIONS

This chapter deals with the summary of the study, conclusion drawn, implication, recommendations and limitations of the study.

## SUMMARY

This study was undertaken to determine the Effectiveness of Nadi Shodhana Pranayama on level of General Wellbeing among Adolescents studying in selected school at Tiruvannamalai.

Scientific advancement, high educational aspirations and severe competition in academic areas have an impact on the overall development of adolescents because during this age the adolescents enter into the childhood to adulthood. They have many goals to achieve, many desires to fulfil and many ambition in life.

Adolescents are a group of apparently healthy individuals. The health status of an adolescent determines the health status in his/her adulthood. Many serious diseases in adulthood have their roots in adolescence. Also, many adolescents do die prematurely due to various reasons that are either preventable or treatable and many more suffer from chronic ill-health and disability. We can categorize the health needs of the adolescents broadly into three categories: physical, psychological and social. The main health issues faced by the adolescents include: Mental health problems, early pregnancy and childbirth, human immunodeficiency virus/sexually transmitted infection (HIV/STI) and other infectious diseases, violence, unintentional injuries, malnutrition and substance abuse.

Adolescents account for about one-fifth of India's population. About 12.8 percent of students suffer from physical, mental related problems in India. Ignoring adolescents mean ignoring the future of our nation. Untreated health problems of adolescents affect their physical, mental, social development, academic performance. It also leads to academic failure, truancy, family conflicts, drug abuse, violence and suicide.

The practice of Nadi Shodhana Pranayama helps the Human, clear the mind's clutter and the tensions in his body, so that feel more alert, and have greater access to emotional material. It is a non-invasive, non-pharmacological, economical and more effective method for general wellbeing of adolescents. It was witnessed that when the breath is observed, a person can be more present and less reactive towards physical and mental effects.

**The objectives of the study were:**

1. To assess and compare the pre and post test level of General Wellbeing among Adolescents within Experimental and Control group.
2. To assess and compare the pre and post test level of General Wellbeing among Adolescents between Experimental and Control Group.
3. To determine the association in the pre and post test mean difference level of General Wellbeing with the selected demographic variables in Experimental and Control group.

**The Null Hypotheses Stated Were:**

**$NH_1$** : There will be no significant difference between pre and post test level of General Wellbeing among Adolescents in Experimental and Control Group at $P< 0.05$ level .

**$NH_2$** : There will be no significant difference between pre and post test level of General Wellbeing among Adolescents between Experimental and Control Group at $P< 0.05$ level.

**$NH_3$** : There will be no significant association in the mean difference level of General Wellbeing with selected demographic variables among Adolescents in Experimental and control Group at $P< 0.05$ level.

**The Assumptions Were:**

- Adolescent period is a challenged period of great strain, stress and storm and strife which may alter the General wellbeing of Adolescents.
- The Nadi Shodhana Pranayama may enhance the general wellbeing in the Adolescents.

The conceptual framework for this study was developed based on the Callista Roy's adaptation theory. This provides comprehensive framework for input, throughput, output, feedback and reassessment.

The research design selected for this study was True experimental design. Pre test and post test design were used and the study was conducted in Sri Srinivasa High School, Tiruvannamalai. The tool used for data collection were consisting of demographic variables such as age, gender, educational status of father, educational status of mother, occupational status of father, occupational status of mother, family income, type of family, area of residence, dietary pattern , type of physical activity. Modified General Wellbeing scale was used to assess the level of general wellbeing among adolescents.

The pilot study was conducted in Sri Srinivasa High School, Tiruvannamalai, and the findings revealed that the tool was feasible, reliable and practicable to conduct the main study.

The content validity of the tool was established by 8 experts consisting of 2 Medical experts and 6 Nursing experts and the reliability of the tool was confirmed by inter-rater reliability method r=0.83. So the tool was highly reliable.

The main study was conducted in Sri Srinivasa High School, Tiruvannamalai. Based on the inclusive criteria, the investigator selected 60 subjects from the school, from that 30 subjects were selected for Experimental Group and 30 subjects were selected for Control Group through lottery method.

The pre test level of general wellbeing was assessed using modified general wellbeing, subjects of the experimental group were implementated Nadi Shodhana Pranayama, and that of Control Group was practiced routine school activity. The post test level of general wellbeing was assessed by using the same modified general wellbeing scale. Data pertaining to the demographic variables were collected by the investigator by interview method. Both inferential and descriptive statistics were used to analyze the data.

**The Major Findings of the Study Were:**

In comparison of the pre test and post test level of general wellbeing among adolescents in experimental group, revealed that the calculated paired' value t = 23.6 was found to be statistically significant at $p<0.001$ level. This clearly shows that the implementation of Nadi Shodhana Pranayama had shown a significant improvement in the post test level of general wellbeing among adolescents in the experimental group.

In comparison of post test level of general wellbeing among adolescents between the experimental and control group revealed that the calculated unpaired' value of t=15.94 was found to be statistically significant at $p<0.001$, which indicates that there was difference in the post test level of general wellbeing between the groups, this clearly shows that the practice of Nadi Shodhana Pranayama had improves the level of general wellbeing in the experimental group.

The data were collected and analyzed by using descriptive and inferential statistics. The findings revealed that there was high significant difference in the level of general wellbeing among adolescents after the practicing of Nadi Shodhana Pranayama.

The majority of the subjects before practicing of Nadi Shodhana Pranayama were on medium and low positive outcome whereas after practicing of Nadi Shodhana Pranayama 80% of adolescents were on high positive outcome.

**CONCLUSION**

The present study assessed the effectiveness of Nadi Shodhana Pranayama on General wellbeing among adolescents in selected school, Tiruvannamalai. The study findings concluded that there was a statistically significant difference in the level of General wellbeing after practicing Nadi Shodhana Pranayama and this proved to be an effective alternative adjunct therapy and non pharmacological therapy to improve the General wellbeing among adolescents.

## IMPLICATIONS

The investigator has drawn the following implications from the study which is of vital concern to the field of Nursing Practice, Nursing Education, Nursing Administration and Nursing Research.

### Nursing Practice

1. The Nursing personnel, should develop an in depth knowledge and skill on Nadi Shodhana Pranayama.
2. All the nursing personal should obtain training and Certification for Nadi Shodhana Pranayama and implement in the day to day clinical practice.
3. The nursing personnel should organize staff development programs for imparting education and training regarding alternative therapy like yoga.
4. The nursing personnel should encourage the hospitals to setup a separate nursing care unit for patients receiving alternative therapies like yoga.
5. Nurses should collaborate with the other health team members in providing education to the adolescents about Nadi Shodhana Pranayama

### Implications for Nursing Education

1. The nurse educators need to be equipped with adequate knowledge regarding alternative therapy like yoga, relaxation technique.
2. The nurse educators should provide students with adequate exposure for practice of relaxation technique and alternative therapy like yoga.
3. The nurse educators should conduct workshops / conferences for students regarding the use of alternative therapy like yoga, exercise, and relaxation technique.
4. The nurse educators should strengthen the curriculum for nurses to excel them in knowledge and skill in areas of alternative system of health care in daily life.

### Implications for Nursing Administration

1. Nursing Administrators Collaborate with the governing bodies as well as the hospital administration to formulate standard protocols and policy to emphasize alternative therapies like yoga, exercise, relaxation technique.

2. Nursing Administrators should conduct in-service education program to teach yoga for the nurses for the implementation of the yoga to enhance the general wellbeing of patients.
3. Nursing Administrators can strengthen role of the nurses in initiating and implementing yoga as a relaxation technique.
4. Nursing Administrators should provide Incentives and rewards to motivate the nurses to implement yoga as a non pharmacological intervention for improving General Wellbeing.

**Implications of Nursing Research**

1. As a nurse researcher
2. Nursing researcher should disseminate the findings of research through conferences, seminars, and Publication in nursing journals.
3. Nursing researcher should motivate to conduct more studies to know the effectiveness of non Pharmacological intervention like yoga.
4. Nursing researcher should evaluate the use of new trends in existing yoga therapy for improvement of General wellbeing.
5. Encourage the utilization of evidence based practice in the clinical and community Settings.

**RECOMMENDATIONS**

1. The study can be conducted with larger population in a different setting for better generalization.
2. Comparative study can be done to assess the effectiveness of Nadi Shodhana Pranayama on general wellbeing among different age groups.
3. Study can be conducted to assess the knowledge, attitude and practice of Nadi Shodhana Pranayama among the adolescents.
4. Study can be conducted to assess the effect of Nadi Shodhana Pranayama among the Hospitalized patients.
5. Study can be replicated among the adolescents in different settings.

**LIMITATIONS**

1. Initially the investigator had difficulty in obtaining permission from the setting of the study.
2. As there were limited studies on Nadi Shodhana Pranayama on level of general wellbeing, the investigator had difficulty in obtaining related reviews of literature.
3. The sample size was only 60, hence the findings could not be generalized.

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## APPENDIX - A


# VIGNESH NURSING COLLEGE

No. 131, Manalurpet Road, Kizhanaikarai, Tiruvannamalai - 606 603.

Recognized by Indian Nursing Council, NewDelhi & Tamil Nadu Nurses & Midwives Council, Chennai

Affiliated to The Tamil Nadu Dr.M.G.R. Medical University, Chennai


### LETTER SEEKING AND GRANTING PERMISSION FOR DATA COLLECTION

**Date: 13.11.2015**

TO

The Headmaster,
Sri Srinivasa High School,
Adiannamalai,
Tiruvannamalai – 606 604.

Sir / Madam,

Sub: Requesting to grant permission for data collection – regarding.

*****

Ms. Tamizhazhagi is a bonafide student of our college studying in M.sc (Nursing) programme, As a partial fulfillment of the university requirement for the award of M.sc (Nursing) Degree, she needs to conduct research project.

Her chosen research project is as follows "A study to Assess the Effectiveness of Nadi Shodhana Pranayama on General Wellbeing among Adolescents Studying in Selected School, Tiruvannamalai".

She will abide by the rules and regulations of the institution and adhere to the institutional policies during her period of data collection. Permission may kindly be granted to her for conduction of the study at your esteemed institution.

Further details of the proposal project will be furnished by the students personally. Confidentiality will be ensured in the research project.

Thanking you

Yours faithfully

PRINCIPAL,
Vignesh Nursing College,
Kizhanaikkarai,
Tiruvannamalai - 606 603.


Phone : 04175 - 235410 E-mail : vnc_tvmalai@yahoo.co.in

**APPENDIX -B**

# SRI SRINIVASA HIGH SCHOOL

Gowthama Ashram, Adiannamalai, Tiruvannamalai – 606 604

Date : 20.12.2015

To

The Principal
Vignesh Nursing College
Tiruvannamalai.

Madam,

Sub: Permission for conducting study – Regarding.

Ref: Your letter dated 13.09.2015

*****

With reference to your above letter, we are happy to permit Ms.R.Tamizhazhagi, M.Sc (Nursing) 2nd year student to conduct her pilot and followed main study on "A study to as the Effectiveness of Nadi Shodhana Pranayama on General WellBeing among Adolescents Studying in Selected School at Tiruvannamalai". At our school during November-December 2015 under the following conditions.

Terms and Condition:

a. The candidate should strictly follow the rules and regulations of our school.
b. Whatever details collected should be presented to us for vetting before submission to the college.
c. Information so collected should be kept strictly confidential.

Thanking you

20/12/15

SRI SRINIVASA HIGH SCHOOL Dt. TV.MALAI-606604 ADIANNAMALAI

Head Mistress,
Sri Srinivasa High School,
Gowthama Ashram, Adiannamalai,
Tiruvannamalai - 606 604.

# APPENDIX-C

## LETTER SEEKING EXPERTS OPINION FOR CONTENT VALIDITY

From

Ms. R .Tamizhazhagi,
M.sc (Nursing) II year,
Vignesh Nursing College,
Tiruvannamalai- 606 603.

To

Respected Sir / Madam,

Sub: Requisition for expert opinion for content validity - reg.

*****

I am a second year M.sc (Nursing) student studying in Vignesh Nursing College, Manalurpet Road, Tiruvannamalai, under the Tamilnadu Dr. M.G.R Medical University.

I would like to conduct “A study to as the Effectiveness of Nadi Shodhana Pranayama on General Well Being among Adolescents Studying in Selected School at Tiruvannamalai”.

Here with I am sending the developed tool for content validity for your opinion and possible suggestions, I would be most obliged if you can do the needful and return it to the undersigned.

Thanking you,

Yours faithfully

Enc: R.Tamizhazhagi

- Research proposal
- Research tool and scoring key
- Certificate for content validity
- Self addressed envelop

## LIST OF EXPERTS FOR CONTENT VALIDITY

**MEDICAL EXPERTS**

1. **Dr. K. Rajasekaran M.B.B.S.,M.D.,(Pediatrician)**
   Assistant Professor
   Department of Pediatrics
   Govt. Tiruvannamalai Medical College & Hospital
   Tiruvannamalai – 606 604
2. **Dr. Ezilmaran, B.N.Y.S., M.Sc (Phy).,**
   Chief Medical Officer,
   Sai Seva Yoga Nature Cure Hospital & Research Centre,
   Tiruvannamalai – 606 601.

**NURSING EXPERTS**

1. **Mrs. Anitha Rajendra Babu, M.Sc., (N)., P.hd.,(N)**
   Principal
   Rajalakshmi College of Nursing
   Ralalakshmi nagar,
   Thandalam, Chennai-602105
2. **Mrs.Premalatha, M.SC (N).,**
   Principal
   Vee Care College of Nursing
   Vanagaram, Chennai-600095
3. **Mrs. Sudha., M.SC (N)**
   Vice principal
   MA Chidambaram College of Nursing
   Tharamani, Chennai-600113
4. **Mrs. Bhima umamaheswari, M.SC (N).,**
   Principal
   Padmasree College of Nursing
   Bangalore -560072
5. **Mrs.Chithra, M.SC (N)**
   Professor
   Aragonda Apollo College of Nursing
   Thavanampalle , chittor district
   Aragonda -517129
6. **Mrs. Zealous Mary, M.SC (N)., Ph.D.,(N)**
   Associate professor
   MMM College of Nursing
   Nolanbur, Chennai-600095

7. **Mrs.Princly, M.SC(N).,**
   Associate professor
   Omayalachi College of Nursing
   Puzhal, Chennai-600066

**PSYCHOLOGIST**

1. **Ms. M. Yazhni M.Sc (psy) PGDG.,**
   Psychologist
   Appa Mental Hospital
   Tiruvannmalai - 606 603

## APPENDIX-D


# SAI SEVA YOGA, NATURE CURE HOSPITAL & RESEARCH CENTRE

(Run by NYRD TRUST)

Dr. P. EZHILMARAN, B.N.Y.S., M.Sc (Psy)
Chief Medical Officer,
Reg. No: 67


Date: 21.10.15.

### TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Ms.R.Tamizhazhagi**; IInd year student of M.Sc Nursing of **V**ignesh **N**ursing **C**ollege had undergone a weeks training at our institute about Nadishodhana Pranayama to support her study to" **Assess the Effectiveness of NadiShodhana Pranayama on General Wellbeing Among Adolescents in selected school at Thiruvannamalai"**. She had been taught with the physiological effects & benefits of Nadi Shodhana by our Lady Medical Officer.

**We wish all the best for her Study.**

**Yours**

Dr. P. EZHILMARAN, B.N.Y.S., M.Sc (Psy)
Chief Medical Officer,
Reg. No: 67
SAI SEVA YOGA, NATURE CURE HOSPITAL & RESEARCH CENTRE
C. Big Street, Tiruvannamalai - 606 601, Tamilnadu.
Cell : 09488858372, Phone: 04175-251241
e-mail: drezhilmaran@curenatural.org

## APPENDIX-E

### CERTIFICATE FOR ENGLISH EDITION

**TO WHOM SO EVER IT MAY CONCERN**

This is to certify that the dissertation work **"A Study to Assess The Effectiveness of Nadi Shodhana Pranayama on General Wellbeing Among Adolescents Studying in Selected School, Tiruvannamalai,"** done by Ms. R.TAMIZHAZHAGI, II year M.SC (Nursing), student of Vignesh Nursing College, Tiruvannamalai, is edited for English language appropriateness.

J. MARIA ELAYA GANDHI,
B.Sc., M.A., B.Ed., PGDCA.,
Head Master
R.C.M. High School,
Vandavasi - 604 408.
Seal with date
10/2016

signature

## APPENDIX-F

## CERTIFICATE FOR TAMIL EDITION

**TO WHOM SO EVER IT MAY CONCERN**

This is to certify that the dissertation work **"A Study to Assess the Effectiveness of Nadi Shodhana Pranayama on General Wellbeing among Adolescents studying in selected school, Tiruvannamalai,"** done by MS.TAMIZHAZHAGI,II year,M.SC (Nursing), student of Vignesh Nursing College ,Tiruvannamalai, is edited for tamil language appropriateness.

Seal with date

பாபு.கு.இராதாகிருட்டிணன்
முதுகலைத் தமிழாசிரியர் & திட்ட அலுவலர்.
நா.ந. மதிட்டம். அ.ஆ.மே.நி.பள்ளி
வேட்டவலம் - 606 754. தி.மலை.
13.06.2016.

signature 13/06/16

# APPENDIX-G

## INFORMED CONSENT

Greetings,

I Ms. R. Tamizhazhagi M.sc (Nursing) II year, Vignesh Nursing College, Tiruvannamalai, has been conducting **"A study to as the Effectiveness of Nadi Shodhana Pranayama on General Well Being among Adolescents Studying in Selected School at Tiruvannamalai"**. For the partial fulfillment of the requirement for the degree of the M.sc Nursing under the Tamilnadu Dr. M.G.R Medical University, Chennai.

As a part of research work, I need to collect a data from students. In connection with the same, I seek your valuable support and kind co- operation to complete the frill work related to my research work in time. Further I assure you sir/madam; the information provided by you will be kept confidential and will not be disclosed at any stage. Your precious support is solicited.

Thank you

# APPENDIX - H

## ஒப்புதல் படிவம்

### வணக்கம்

ரா.தமிழழகி ஆகிய நான் கீழ் அனைக்கரையில் உள்ள விக்னேஷ் செவிலியர் கல்லூரியில் முதுகலை பட்டப்படிப்பு பயின்று வருகின்றேன். என் படிப்பின் ஒரு பகுதியாக வளரிளம் குழந்தைகளின் உடல்நல ஆரோக்கியத்தை எவ்வாறு பராமரிப்பது பற்றிய ஆய்வை நடத்துவதற்கான கேள்விகளை வடிவமைத்துள்ளேன்.

தயவுசெய்து நீங்கள் என்னுடன் ஒத்துழைக்குமாறு வேண்டிக்கொள்கிறேன். நான் உங்களிடம் இருந்து பெற்ற தகவல்களை எக்காரணத்தைக் கொண்டும் வெளியிடமாட்டேன் என்று உறுதி அளிக்கிறேன்.

### நன்றி

# APPENDIX-I

## PARENTS INFORMED CONSENT FORM

I understand that my child is also being asked to participate in a research study conducted by Ms.R.Tamizhazhagi, M.Sc (Nursing) Student of Vignesh Nursing College, Tiruvannamalai. This research study will assess the **"A study to assess the Effectiveness of Nadi Shodhana Pranayama on General WellBeing among Adolescents Studying in Selected School at Tiruvannamalai".** I understand that you are collecting information about General wellbeing for all adolescents with prior parents' permission , so I am permitting you to collect information for my children to assess the level of General wellbeing , I understand that there are no risks associated with this study.

I realize that benefit of the Nadi Shodhana Pranayama and from this study may help either me or other people in the future. I realized that my children participation in this study is entirely voluntary, and I may withdraw my children from the study at any time I wish. If I decide to discontinue my children in participation of this study, He/She will continue to be treated in the usual customary fashion.

I understand that all study data will be kept confidential. However, this information may be used in nursing publication or presentation. If I need to, I can contact Ms.R.Tamizhazhagi, M.sc nursing II year student of Vignesh nursing college Tiruvannamalai, at any time during the study.

The study has been explained to me. I have read and understood this consent form, all of my questions have been answered, and I agree to participate. I understand that I will be given a copy of this signed consent form.

---------- ----------

Signature of participant Date:

---------- ----------

Signature of investigator Date:

## APPENDIX- J

## பெற்றோரின் ஒப்பந்த படிவம்

விக்னேஷ் செவிலியர் கல்லூரியின் சார்பில் முதுநிலை பட்டப்படிப்பு பயிலும் ரா.தமிழழகி அவர்களால் நடத்தபெறும் இந்த ஆய்வில் என் மகன் / மகளை பங்கேற்க கேட்டுக் கொண்டதை நான் ஏற்றுக் கொள்கிறேன். இந்த ஆய்வுக்கு நான் ஒப்புக் கெண்டால் அதனை தொடர்ந்து உள்ள பயிற்சிகளில் என் மகன்/மகள் பங்கேற்க வேண்டும் என்றும் என் மகன்/ மகளிடம் நடத்தும் இந்த ஆய்வு முடிவுகள் அனைத்தும் பதிவு செய்து பாதுகாகப் படும் என்பதை நான் அறிவேன். நான் எவரின்/ யாருடைய காட்டாயத்தின் பெயரிலோ அல்லது வற்புறுத்தலின் பெயரிலோ ஆய்வில் பங்கு கொள்ளவில்லை என்பதையும் தேவப் பட்டால் நான் ஆய்விலிருந்து விலகிக் கொள்ளும் பட்சத்திலும் எப்போதும் பிறரைப் போலவே நடத்தப்படுவேன் என்பதை அறிவேன்.

என்னைப் பற்றிய அனைத்து தகவல்தரும் இரகசியமாக பாதுகாக்கப்படும் என்பதையும் தேவைப்படும் போது ஆய்வின் முடிவுகள் செவிலியர் சார்ந்த பத்திரிகை கைகளிலும், கருத்தரங்குகளிலும் வெளியிட முழு சம்மதம் அளிக்கிறேன். இந்த ஆய்வினை பற்றிய முழு விளக்கமும் எனக்கு அளிக்கப்பட்டிருக்கிறது. அதனை நான் முற்றிலுமாக புரிந்து கொண்டு ஆய்வில் என் மகள் பங்குகொள்ள சம்மதம் அளிக்கிறேன்.

இந்த ஆய்வில் தேவைப்படும் போது வேண்டுமானாலும் ரா.தமிழழகி அவர்களை விக்னேஷ் செவிலியர் கல்லூரியில் தொடர்பு கொள்ளலாம் என்பதனை அறிவேன்.

பங்கு கொள்பவரின்/ பாதுகாவலரின் கெயொப்பம் தேதி:

ஆராய்ச்சியாளரின் கையொப்பம் தேதி:

# APPENDIX-K

## COPY OF TOOL FOR DATA COLLECTION

**SECTION A: DEMOGRAPHIC VARIABLES**

**Sample No:**

**1. AGE**

a. 13-14 years

b. 15-16 years

**2. GENDER**

a. Male

b. Female

**3. BIRTH ORDER**

a. One

b. Two

c. Three

d. Four

**4. EDUCATIONAL STATUS OF FATHER**

a. No formal education

b. Primary school education

c. High school education

d. Higher secondary school

e. Any degree

**5. EDUCATIONAL STATUS OF MOTHER**

a. No formal education

b. Primary school education

c. High school education

d. Higher secondary school

e. Any degree

**6. OCCUPATINAL STATUS OF FATHER**

a. Unemployed

b. Semi-skilled worker

c. Skilled worker

d. Professional

e. Others

**7. OCCUPATINAL STATUS OF MOTHER**

a. Unemployed

b. Semi-skilled worker

c. Skilled worker

d. Professional

e. Others

**8. FAMILY INCOME**

a. RS. 1000-4000

b. RS. 4001-8000

c. RS. 8001-12000

d. RS .Above 12000

**9. TYPE OF FAMILY**

a. Nuclear family

b. Joint family

c. Broken family

d. Extended family

**10. AREA OF RESIDENCE**

a. Rural

b. Urban

**11. DIETARY PATTERN**

a. Vegetarian

b. Mixed diet

**12. TYPE OF PHYSICAL ACTIVITY**

a. Mild

b. Moderate

c. Severe

## SECTION-B

**Name---------- section---------- Date----------**

## MODIFIED GENERAL WELL – BEING SCALE

For each question, choose the answer that best describes how you have felt and how things have been going for you during the past month.

1. How have you been feeling in general?

5-In excellent spirits

4-In very good spirits

3-In good spirits mostly

2-I've been up and down in spirits a lot

1-In low spirits mostly

0-In very low spirits

2. Have you been bothered by nervousness or your "nerves"?

0- Extremely so-to the point where I could not work or take care of things

1-Very much so

2-Quite a bit

3- Some-enough to bother me

4-A little

5-Not at all

3. Have been in firm control of your behavior, thoughts, emotions, feelings?

5-Yes, definitely so

4-Quite a bit

3-Generally so

2-Not too well

1-No, and I am somewhat disturbed

0-No, and I am very disturbed

4. Have you felt so sad, discouraged, hopeless, or had so many problems that you wondered if anything was worthwhile?

0-Extremely so – to the point I have just about given up

1-Very much so

2-Quite a bit

3-Some –enough to bother me

4-Alittle bit

5-Not at all

5. Have you been under or felt you were under any strain ,stress, or pressure?

0-Yes-almost more than I could pressure

1-Yes-quite a bit of pressure

2-Yes-some, more than usual

3-Yes-some, but about usual

2-Yes-a little

5-Not at all

6. How happy, satisfied, or pleased have been with your personal life?

5-Extremely happy-couldn't have been more satisfied or pleased

4-Very happy

3-Fairly happy

2-Satisfied-pleased

1-Somewhat dissatisfied

0-Very dissatisfied

7.Have you had reason to wonder if you were losing your mind , or losing control over the way you act, talk ,think ,feel, or of your memory?

5-Not at all

4-Only a little

3-Some, but not

2-Some and I've been a little concerned

1- Some and I am quite concerned

0-Much, and I'm very concerned

8. Have you been anxious, worried, or upset?

0-Extremely so-to the point of being sick, or almost sick

1-Very much so

2-Quite a bit

3-Some –enough to bother me

4-A little bit

5-Not at all

9. Have you been waking up fresh and rested?

5-Every day

4-Most every day

3-Fairly often

2-Less than half the time

1-Rarely

0-None of the time

10. Have you been bothered by any illness, bodily disorder, pain, or fears about tour health?

0-All the time

1-Most of the time

2-A good bit of the time

3-Some of the time

4-A little of the time

5-None of the time

11. Has your daily life been full of things that are interesting to you?

5-All the time

4-Most of the time

3-Agood bit of the time

2-Some of the time

1-A little of the time

0-None of the time

12. Have you felt downhearted an blue?

0-All the time

1-Most of the time

2-Agood bit of the time

3-Some of the time

4-A little of the time

5-None of the time

13. Have you been feeling emotionally stable and sure of your self?

5-All the time

4-Most of the time

3-Agood bit of the time

2-Some of the time

1-A little of the time

0-None of the time

14. Have you felt tired, worn out, used ip, or exhausted?

0-All the time

1-Most of the time

2-A good bit of the time

3-Some of the time

4-A little of the time

5-None of the time

15. How concerned or worried about your health you been?

0-All the time

1-Most of the time

2-A good bit of the time

3-Some of the time

4-A little of the time

5-None of the time

16. How relaxed or tense have you been?

5-All the time

4-Most of the time

3-Agood bit of the time

2-Some of the time

1-A little of the time

0-None of the time

17. How much energy, pep, and vitality have you felt?

5-All the time

4-Most of the time

3-Agood bit of the time

2-Some of the time

1-A little of the time

0-None of the time

18. How depressed or cheerful have you been?

0-All the time

1-Most of the time

2-A good bit of the time

3-Some of the time

4-A little of the time

5-None of the time

19. Are you interested in activities that will expand your horizons?

5-All the time

4-Most of the time

3-Agood bit of the time

2-Some of the time

1-A little of the time

0-None of the time

20. Do you have a sense of direction and purpose in life?

5-All the time

4-Most of the time

3-Agood bit of the time

2-Some of the time

1-A little of the time

0-None of the time

21. In general, do you feel confident and positive about yourself?

5-All the time

4-Most of the time

3-Agood bit of the time

2-Some of the time

1-A little of the time

0-None of the time

22. Is your demands of everyday life often get you down?

0-All the time

1-Most of the time

2-A good bit of the time

3-Some of the time

4-A little of the time

5-None of the time

23. Do you feel that your daily activities often seen trivial and unimportant to you?

0-All the time

1-Most of the time

2-A good bit of the time

3-Some of the time

4-A little of the time

5-None of the time

24. Are you quite good at managing many responsibilities of your daily life?

5-All the time

4-Most of the time

3-Agood bit of the time

2-Some of the time

1-A little of the time

0-None of the time

25. Do you find your life is a continuous process of learning, changing and growth?

5-All the time

4-Most of the time

3-Agood bit of the time

2-Some of the time

1-A little of the time

0-None of the time

**SCORING KEY:**

| **LEVEL OF GENERAL WELL BEING** | **SCORES** |
|---|---|
| High Positive outcome | 91-125 |
| Medium positive outcome | 61-90 |
| Low positive outcome | 31-60 |
| Negative outcome | 0-30 |

## தகவல் சேகரிப்பு கருவி

## பிரிவு-I

**தனிநபர் விவரம்**

1. வயது வருடங்களில்
   அ) 13-14 வருடம் ஆ) 15-16 வருடங்கள்
2. பாலினம்
   அ) ஆண் ஆ) பெண்
3. பிறப்பு வரிசை
   அ) ஒன்று ஆ) இரண்டு
   இ) மூன்று ஈ) நான்கு
4. தந்தையின் கல்வித்தகுதி
   அ) கல்வி பெறவில்லை ஆ) தொடக்கக்கல்வி
   இ) உயர்நிலைக்கல்வி ஈ) மேல்நிலைக்கல்வி
   உ) பட்டப்படிப்பு
5. தாயின் கல்வித்தகுதி
   அ) கல்வி பெறவில்லை ஆ) தொடக்கக்கல்வி
   இ) உயர்நிலைக்கல்வி ஈ) மேல்நிலைக்கல்வி
   உ) பட்டப்படிப்பு
6. தந்தையின் பணி விவரம்
   அ) வேலையில்லை ஆ) பயிற்சியற்ற வேலை
   இ) பயிற்சி பெற்ற வேலை ஈ) தொழிற்கல்வி
   உ) மற்றவர்கள்
7. தாயின் பணி விவரம்
   அ) வேலையில்லை ஆ) பயிற்சியற்ற வேலை
   இ) பயிற்சி பெற்ற வேலை ஈ) தொழிற்கல்வி
   உ) மற்றவர்கள்
8. குடும்ப மாத வருமானம்
   அ) ரூ.1000-4000 ஆ) ரூ 4000-8000
   இ) ரூ 8001 - 12000 ஈ) ரூ 12001-அதற்கு மேல்

9. குடும்பத்தின் வகை

அ) தனி குடும்பம் ஆ) கூட்டுக்குடும்பம்

இ) உடைந்த குடும்பம் ஈ) விரவாக்கப்பட்ட குடும்பம்

10. வசிக்கும் இடம்

அ) கிராமம் ஆ) நகரம்

11. உணவு பழக்கம்

அ) சைவம் ஆ) அசைவம்

12. உடல் செயல்பாடு வகை

அ) மிதமான ஆ) இயல்பான இ) கடுமையான

## பிரிவு -II

1. நீங்கள் பொதுவாக தன்னம்பிக்கை பற்றி எவ்வாறு உணர்கிறீர்கள?

   அ) 5-மிக அதிக அளவு தன்னம்பிக்கை ஆ)4-நல்ல தன்னம்பிக்கை

   இ) 3-பெரும்பாலும் நம்பிக்கையுண்டு ஈ)2-தன்னம்பிக்கை குறைவு

   உ) 1-குறைந்த தன்னம்பிக்கை ஊ)0-மிகக்குறைவு தன்னம்பிக்கை

2. நீங்கள் பயத்தை அல்லது உங்கள் "நரம்புகளின்" பொருட்படுத்தியுள்ளீர்கள்?

   அ) 0-இயலாமையின் போது அதிக அளவு பயந்திருக்கிறேன்

   ஆ) 1-அதிக அளவு

   இ) 2-அவ்வப்போது ஈ)3-எப்பொழுதாவது

   உ) 4-மிகக்குறைந்த அளவு ஊ) 5-எவ்பயமில்லை

3. உங்கள் நடத்தை, எண்ணங்கள், உணர்ச்சிகள், உணர்வுகள் உறுதியான கட்டுப்பாடு உள்ளவரா?

   அ) 5- நிச்சியமாக ஆ) 4-சிறிதளவு

   இ) 3-பொதுவாக ஈ)2-அதிக அளவுஇல்லை

   உ) 1-இல்லை, அவ்வப்போது கட்டுப்பாடுயின்மை

   ஊ) 0-இல்லை, எப்பொழுதுமே கட்டுபாடு இல்லை

4. நீங்கள் வருத்தமாக ஊக்கம் இழந்து அல்லது ஏதாவது பயனுள்ளது அடைய இயலாத போது, சோகமாக, உற்சாகம் இழந்து, பிரச்சனைகளை சந்திக்க இயலாததால், அதனை இழந்துள்ளீர்கள்?

   அ) 0-மிகவும் ஒன்றை விட்டுக் கொடுக்கும் போது

   ஆ) 1-மிகவும் அதிகமாக

   இ) 2- குறைந்த அளவு

   ஈ) 3-எனக்குட்டபட்ட அளவில்உ) 4-மிகக் குறைந்த அளவு

   ஊ) 5-நம்பிக்கை இழந்தது இல்லை

5. நீங்கள் மன அழுத்தம், மன வருத்ததில் இருப்பதாக உணர்கிறீர்களா?

அ) 0-அதிக அளவு ஆ) 1-அதிகம்

இ) 2-வழக்கத்தை விட அதிகமாக

ஈ)3-ஆனால் என் வழஙக்கத்திற்கு இல்லை

உ) 4-மிகக் குறைந்த அளவு ஊ) 5-இல்லவே இல்லை

6. உங்களது தனிப்பட்ட வாழ்க்கையை சந்தோஷம், மகிழ்ச்சி, அமைதி திருப்திகரம் எந்த அளவு உள்ளது?

அ) 5-மிகவும் சந்தோஷமாக ஆனால் அதிக திருப்தியான அமைதியின்னை

ஆ) 4-மிகவும் சந்தோஷமாக

இ) 3-குறைந்த அளவு சந்தோஷமாக ஈ)2-ஓரளவுதிருப்தியான அமைதி

உ) 1-ஓரளவு அதிருப்தி ஊ) 0-மிகுந்த அதிருப்தி

7. நீங்கள் உங்கள் நினைவைத்தாண்டிய பேச்சு, கோபம் உணர்ச்சியை இழப்பதற்கான காரணம் உணர்ந்து வியந்தது உண்டா?

அ) 5-இல்லவே இல்லை ஆ) 4-சிறிதளவு

இ) 3-குறைந்த அளவு

ஈ) 2-குறைந்தளவு, நான் மிகவும் வருத்தத்தில் இருக்கும் போது

உ) 1-நான் சிறிதளவு வருத்தத்தில் இருக்கும்போது

ஊ) 0-அதிக வருத்தத்தில் இருக்கும்போது

8. நீங்கள் எப்போதாவது கவலை, வருத்தம், உற்சாகம் இழந்து இருக்கிறீர்களா?

அ) 0-உடல் நிலை சரியில்லாத போது அதிக அளவு

ஆ) 1-அதிக அளவு

இ) 2-குறைந்த அளவு

ஈ) 3-போதுமான அளவு

உ) 4-மிகக் குறைந்த அளவு

ஊ) 5-எப்போதும் இல்லை

9. தூங்கி எழும்போது புத்துணர்ச்சியுடனும், நன்கு ஓய்வு எடுத்தது போன்றும் உணர்கிறீர்களா?

அ) 5-ஒவ்வொரு நாளும்

ஆ) 4-அவ்வப்போது ஒவ்வொருநாளும்

இ) 3-ஒரு சில நாட்கள்

ஈ) 2-பிதி நாட்கள்

உ) 1-மிகவும் அரிதான நாட்களில்

ஊ) 0-என்றைக்கும் இல்லை

10. உடல்நிலை சரியின்மை, உடல்வலி, உடல்நிலை சரியின்மையோ அல்லது உள்ளது உங்கள் உடல்நிலையைப் பற்றிய பயத்தையோ, பொருட்படுத்தி இருக்கிறீர்களா?

அ) 0-எப்போதும்

ஆ) 1-அதிக நேரங்களில்

இ) 2-குறைந்த நேரங்களில்

ஈ) 3-எப்போதாகவது

உ) 4-மிகக் குறைந்த அளவு

ஊ) 5-எப்போதும் இல்லை

11. உங்கள் தினசரி நாட்களில் நீங்கள் விரும்பியது போல் நிரம்பியதாய், கழிகிறதா?

அ) 5-ஆம் எப்பொழுது

ஆ) 4-அவ்வப்போழுது

இ)3-பல நாட்களில் அமைகிறது

ஈ) 2-எப்போதாவது அமைகிறது

உ) 1-குறைந்த நாட்கள்

ஊ) 0-ஒரு நாளும் இல்லை

12. தாங்கள், எப்போதாவது மனம் உடைந்து இருக்கிறிர்களா?

அ) 1-எப்பொழுதும்

ஆ)2-அதிக அளவு நேரம்

இ) 3-ஓரளவு நேரம்

ஈ) 4-எப்போதாவது

உ) 5-மிகக் குறைந்த நேரங்களில்

ஊ) 6-எப்பொழுதும் இல்லை.

13. நீங்கள் உணர்வுப்பூர்வமாக, உறுதியான, மாறாநிலையைப் பெற்றவராக உணர்திறர்களா?

அ) 5-எப்பொழுதும்

ஆ)4-அதிக நேரங்களில்

இ) 3-சில நேரங்களில்

ஈ) 1-குறைந்த நேரங்களில்

உ) 1-குறைந்த நேரங்களில்

ஊ) 0-எப்பொழுதும் இல்லை

14. நீங்கள் சோர்வாக, செயல் இழந்ததாக, புத்துணர்ச்சி இழந்தது போல் உணர்ந்திருக்கிறிர்களா?

அ) 0-எப்பொழுதும்

ஆ) 1-பல நேரங்களில்

இ) 2-குறைந்த நேரங்களில்

ஈ) 3-சில நேரங்களில்

உ) 4-எப்போதாவது

ஊ) 5-எப்பொழுதும் இல்லை.

15. உங்கள் உடல்நிலையைப் பற்றி எந்த அளவு அக்கறையுடைளவர்?

அ) 0-எப்பொழுதும்

ஆ) 1-பல நேரங்களில்

இ) 2-குறைந்த நேரங்களில்

ஈ) 3-சில நேரங்களில்

உ) 4-எப்போதாவது

ஊ) 5-எப்பொழுதும் இல்லை.

16. நீங்கள் எந்த அளவுலூர் (எ) பதட்டமானவர்?

அ) 5-எப்பொழுதும்

ஆ)4-அதிக நேரங்களில்

இ) 3-சில நேரங்களில்

ஈ) 1-குறைந்த நேரங்களில்

உ) 1-குறைந்த நேரங்களில்

ஊ) 0-எப்பொழுதும் இல்லை

17. நீங்கள் எந்த அளவு புத்துணர்ச்சி, மற்றும் உறுதியானநம்பிக்கை உடையவர் புத்துணர்ச்சி நம்பிக்கை அதிக ?

அ) 5-எப்பொழுதும்

ஆ)4-அதிக நேரங்களில்

இ) 3-சில நேரங்களில்

ஈ) 1-குறைந்த நேரங்களில்

உ) 1-குறைந்த நேரங்களில்

ஊ) 0-எப்பொழுதும் இல்லை

18. உங்களது மன அழுத்தம் அல்லது மன மகிழ்ச்சி எந்த அளவு?

அ) 0-எப்பொழுதும்

ஆ) 1-பல நேரங்களில்

இ) 2-குறைந்த நேரங்களில்

ஈ) 3-சில நேரங்களில்

உ) 4-எப்போதாவது

ஊ) 5-எப்பொழுதும் இல்லை.

19. உஙகளின் சிந்தனை விரிவடையச் செய்யும் செயல்களை செய்ய விருப்பம் உள்ளதா?

அ) 5-எப்பொழுதும்

ஆ)4-அதிக நேரங்களில்

இ) 3-சில நேரங்களில்

ஈ) 1-குறைந்த நேரங்களில்

உ) 1-குறைந்த நேரங்களில்

ஊ) 0-எப்பொழுதும் இல்லை

20. உங்கள் வாழ்க்கை செல்லும் திசையிலும், வாழ்க்கையின் முக்கியத்துவத்தையும் உணர்ந்தவரா?

அ) 5-எப்பொழுதும்

ஆ)4-அதிக நேரங்களில்

இ) 3-சில நேரங்களில்

ஈ) 1-குறைந்த நேரங்களில்

உ) 1-குறைந்த நேரங்களில்

ஊ) 0-எப்பொழுதும் இல்லை

21. பொதுவாக, நீங்கள் உங்களை பற்றி நம்பிக்கை மற்றும் நல்ல எண்ணம் கொண்டவரா?

அ) 5-எப்பொழுதும்

ஆ)4-அதிக நேரங்களில்

இ) 3-சில நேரங்களில்

ஈ) 1-குறைந்த நேரங்களில்

உ) 1-குறைந்த நேரங்களில்

ஊ) 0-எப்பொழுதும் இல்லை

22. அன்றாட வாழ்க்கை உங்கள் கோரிக்கைகளை அடிக்கடி நிறைவேறாமல் சென்றுள்ளதா?

அ) 0-எப்பொழுதும்

ஆ) 1-பல நேரங்களில்

இ) 2-குறைந்த நேரங்களில்

ஈ) 3-சில நேரங்களில்

உ) 4-எப்போதாவது

ஊ) 5-எப்பொழுதும் இல்லை.

23. உங்களுடைய  அன்றாட வாழ்க்கையின் நடவடிக்கைகள் முக்கியத்தும் அற்றது என உணருகிறீர்களா?

அ) 0-எப்பொழுதும்

ஆ) 1-பல நேரங்களில்

இ) 2-குறைந்த நேரங்களில்

ஈ) 3-சில நேரங்களில்

உ) 4-எப்போதாவது

ஊ) 5-எப்பொழுதும் இல்லை.

24. உங்களுடைய அன்றாட வாழ்வின் பொறுப்புகளை நிர்வகிக் இயலும் என உணருகிறீர்களா?

அ) 5-எப்பொழுதும்

ஆ)4-அதிக நேரங்களில்

இ) 3-சில நேரங்களில்

ஈ) 1-குறைந்த நேரங்களில்

உ) 1-குறைந்த நேரங்களில்

ஊ) 0-எப்பொழுதும் இல்லை

25. உங்கள் வாழ்க்கை என்பது, எப்போதும் மாற்றவர்களுடன் கற்றலின் வளர்ச்சியாக தொடர்ந்து இருக்கும் என்பதை அறீவிர்களா?

அ) 5-எப்பொழுதும்

ஆ)4-அதிக நேரங்களில்

இ) 3-சில நேரங்களில்

ஈ) 1-குறைந்த நேரங்களில்

உ) 1-குறைந்த நேரங்களில்

ஊ) 0-எப்பொழுதும் இல்லை

# APPENDIX-L

## CODING FOR DATA COLLECTION

**SECTION A: DEMOGRAPHIC VARIABLES** **CODE NO:**

**1.AGE**

A. 13-14 years 1

B. 15-16 years 2

**2. GENDER**

A. Male 1

B. Female 2

**3. BIRTH ORDER**

A. One 1

B. Two 2

C. Three 3

D. Four 4

**4. EDUCATIONAL STATUS OF FATHER**

A. No formal education 1

B. Primary school education 2

C. High school education 3

D. Higher secondary school 4

E. Any degree 5

5**. EDUCATIONAL STATUS OF MOTHER**

A. No formal education 1

B. Primary school education 2

C. High school education 3

D. Higher secondary school 4

E. Any degree 5

**6. OCCUPATINAL STATUS OF FATHER**

A. Unemployed 1

B. Semi-skilled worker 2

C. Skilled worker 3

D. Professional 4

E. Others 5

**7. OCCUPATINAL STATUS OF MOTHER**

A. Unemployed 1

B. Semi-skilled worker 2

C. Skilled worker 3

D. Professional 4

E. Others 5

**8. FAMILY INCOME**

A. RS 1000-4000 1

B. RS 4001-8000 2

C. RS 8001-12000 3

D. RS Above 12000 4

**9. TYPE OF FAMILY**

A. Nuclear family 1

B. Joint family 2

C. Broken family 3

D. Extended family 4

**10. AREA OF RESIDENCE**

A. Rural 1

B. Urban 2

**11. DIETARY PATTERN**

A. Vegetarian 1

B. Mixed diet 2

**12. TYPE OF PHYSICAL ACTIVITY**

A. Mild 1

B. Moderate 2

C. Severe 3

**SECTION B: INTERVENTION TOOL FOR ASSESSING LEVEL OF GENERAL WELLBEING**

Assess the level of General Wellbeing using Modified General Wellbeing

**SCORING KEY:**

| LEVEL OF GENERAL WELL BEING | SCORES |
|---|---|
| High Positive outcome | 91-125 |
| Medium positive outcome | 61-90 |
| Low positive outcome | 31-60 |
| Negative outcome | 0-30 |

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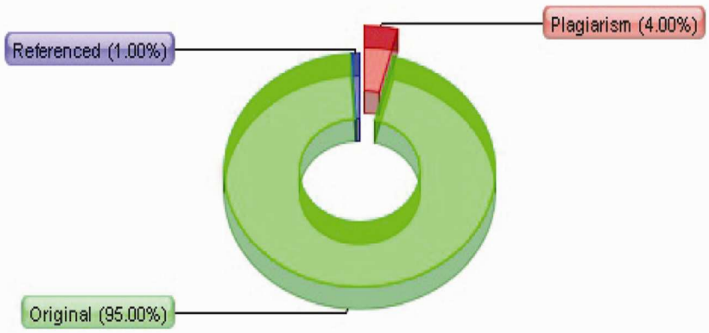
Relation chart:




Distribution graph:

Comparison Preset: Word-to-Word. Detected language: Undefined

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